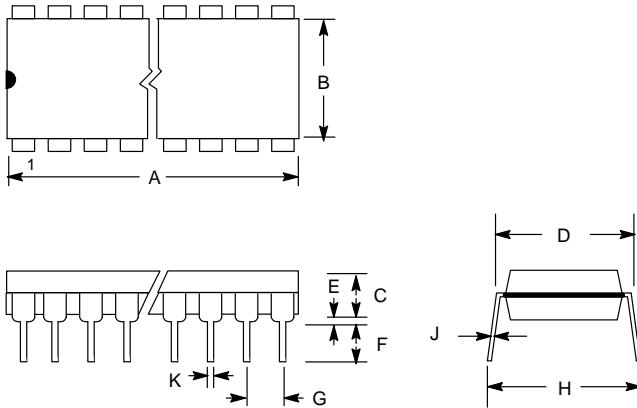


**8– TO 28–PIN DIP (300 MIL)**

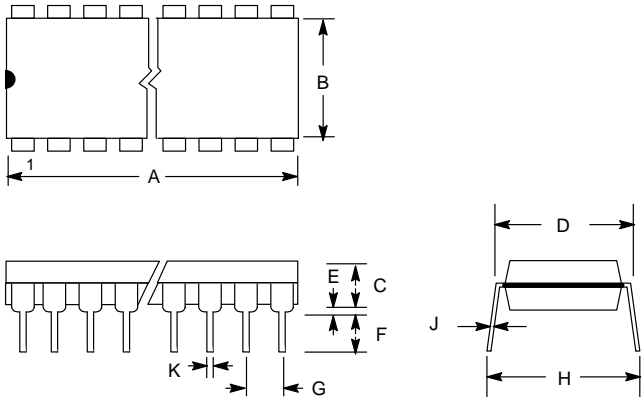
| PKG         | 8-PIN         |                | 10-PIN         |                | 14-PIN         |                | 16-PIN         |                |
|-------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| DIM         | MIN           | MAX            | MIN            | MAX            | MIN            | MAX            | MIN            | MAX            |
| A IN.<br>MM | 0.360<br>9.14 | 0.400<br>10.16 | 0.480<br>12.19 | 0.520<br>13.21 | 0.740<br>18.80 | 0.780<br>19.81 | 0.740<br>18.80 | 0.780<br>19.81 |
| B IN.<br>MM | 0.240<br>6.10 | 0.260<br>6.60  | 0.240<br>6.10  | 0.260<br>6.60  | 0.240<br>6.10  | 0.260<br>6.60  | 0.240<br>6.10  | 0.260<br>6.60  |
| C IN.<br>MM | 0.120<br>3.05 | 0.140<br>3.56  | 0.120<br>3.05  | 0.140<br>3.56  | 0.120<br>3.05  | 0.140<br>3.56  | 0.120<br>3.05  | 0.140<br>3.56  |
| D IN.<br>MM | 0.300<br>7.62 | 0.325<br>8.26  | 0.300<br>7.62  | 0.325<br>8.26  | 0.300<br>7.62  | 0.325<br>8.26  | 0.300<br>7.62  | 0.325<br>8.26  |
| E IN.<br>MM | 0.015<br>0.38 | 0.040<br>1.02  | 0.015<br>0.38  | 0.040<br>1.02  | 0.015<br>0.38  | 0.040<br>1.02  | 0.015<br>0.38  | 0.040<br>1.02  |
| F IN.<br>MM | 0.120<br>3.04 | 0.140<br>3.56  | 0.110<br>2.79  | 0.130<br>3.30  | 0.120<br>3.04  | 0.140<br>3.56  | 0.120<br>3.04  | 0.140<br>3.56  |
| G IN.<br>MM | 0.090<br>2.29 | 0.110<br>2.79  | 0.090<br>2.29  | 0.110<br>2.79  | 0.090<br>2.29  | 0.110<br>2.79  | 0.090<br>2.29  | 0.110<br>2.79  |
| H IN.<br>MM | 0.320<br>8.13 | 0.370<br>9.40  | 0.320<br>8.13  | 0.370<br>9.40  | 0.320<br>8.13  | 0.370<br>9.40  | 0.320<br>8.13  | 0.370<br>9.40  |
| J IN.<br>MM | 0.008<br>0.20 | 0.012<br>0.30  | 0.008<br>0.20  | 0.012<br>0.30  | 0.008<br>0.20  | 0.012<br>0.30  | 0.008<br>0.20  | 0.012<br>0.30  |
| K IN.<br>MM | 0.015<br>0.38 | 0.021<br>0.53  | 0.015<br>0.38  | 0.021<br>0.53  | 0.015<br>0.38  | 0.021<br>0.53  | 0.015<br>0.38  | 0.021<br>0.53  |

Continued on following page.

**MECHANICAL DRAWINGS**

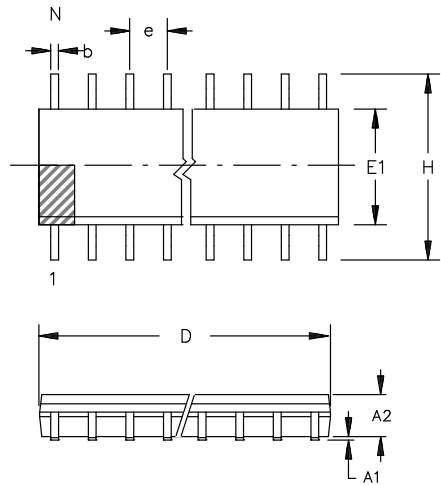
| PKG         | 18-PIN         |                | 20-PIN         |                | 24-PIN         |                | 28-PIN         |                |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| DIM         | MIN            | MAX            | MIN            | MAX            | MIN            | MAX            | MIN            | MAX            |
| A IN.<br>MM | 0.890<br>22.61 | 0.920<br>23.36 | 0.970<br>24.63 | 1.040<br>26.42 | 1.150<br>29.21 | 1.260<br>32.00 | 1.345<br>34.16 | 1.370<br>34.80 |
| B IN.<br>MM | 0.240<br>6.10  | 0.260<br>6.60  | 0.240<br>6.09  | 0.270<br>6.86  | 0.250<br>6.35  | 0.270<br>6.86  | 0.270<br>6.85  | 0.295<br>7.49  |
| C IN.<br>MM | 0.120<br>3.05  | 0.140<br>3.56  | 0.120<br>3.05  | 0.140<br>3.56  | 0.120<br>3.05  | 0.140<br>3.56  | 0.120<br>3.05  | 0.140<br>3.56  |
| D IN.<br>MM | 0.300<br>7.62  | 0.325<br>8.26  | 0.295<br>7.49  | 0.325<br>8.26  | 0.300<br>7.62  | 0.325<br>8.26  | 0.300<br>7.62  | 0.325<br>8.26  |
| E IN.<br>MM | 0.015<br>0.38  | 0.040<br>1.02  | 0.015<br>0.38  | 0.040<br>1.02  | 0.015<br>0.38  | 0.040<br>1.02  | 0.015<br>0.38  | 0.050<br>1.27  |
| F IN.<br>MM | 0.120<br>3.04  | 0.140<br>3.56  | 0.120<br>3.04  | 0.140<br>3.56  | 0.125<br>3.18  | 0.135<br>3.48  | 0.125<br>3.18  | 0.135<br>3.48  |
| G IN.<br>MM | 0.090<br>2.23  | 0.110<br>2.79  | 0.090<br>2.23  | 0.110<br>2.79  | 0.090<br>2.23  | 0.110<br>2.79  | 0.090<br>2.23  | 0.110<br>2.79  |
| H IN<br>MM  | 0.320<br>8.13  | 0.370<br>9.40  | 0.310<br>7.87  | 0.390<br>9.91  | 0.320<br>8.13  | 0.370<br>9.40  | 0.320<br>8.13  | 0.370<br>9.40  |
| J IN<br>MM  | 0.008<br>0.20  | 0.012<br>0.30  | 0.008<br>0.20  | 0.012<br>0.30  | 0.008<br>0.20  | 0.012<br>0.30  | 0.008<br>0.20  | 0.012<br>0.30  |
| K IN.<br>MM | 0.015<br>0.38  | 0.021<br>0.53  | 0.015<br>0.38  | 0.021<br>0.53  | 0.015<br>0.38  | 0.022<br>0.56  | 0.015<br>0.38  | 0.022<br>0.56  |

24- TO 40-PIN DIP (600 MIL)



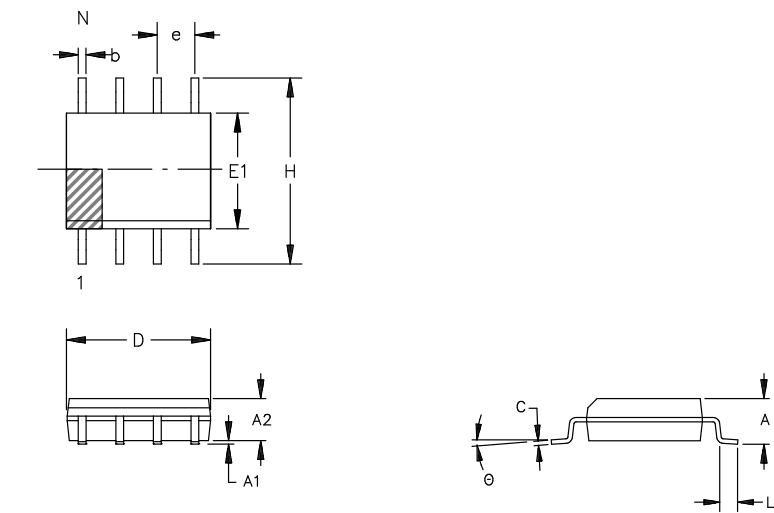
| PKG         | 24-PIN         |                | 28-PIN         |                | 40-PIN         |                |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|
| DIM         | MIN            | MAX            | MIN            | MAX            | MIN            | MAX            |
| A IN.<br>MM | 1.245<br>31.62 | 1.270<br>32.25 | 1.445<br>36.70 | 1.470<br>37.34 | 2.050<br>52.07 | 2.075<br>52.71 |
| B IN.<br>MM | 0.530<br>13.46 | 0.550<br>13.97 | 0.530<br>13.46 | 0.550<br>13.97 | 0.530<br>13.46 | 0.550<br>13.97 |
| C IN.<br>MM | 0.140<br>3.56  | 0.160<br>4.06  | 0.140<br>3.56  | 0.160<br>4.06  | 0.140<br>3.56  | 0.160<br>4.06  |
| D IN.<br>MM | 0.600<br>15.24 | 0.625<br>15.88 | 0.600<br>15.24 | 0.625<br>15.88 | 0.600<br>15.24 | 0.625<br>15.88 |
| E IN.<br>MM | 0.015<br>0.380 | 0.050<br>1.27  | 0.015<br>0.380 | 0.040<br>1.02  | 0.015<br>0.380 | 0.040<br>1.02  |
| F IN.<br>MM | 0.120<br>3.05  | 0.145<br>3.68  | 0.120<br>3.05  | 0.145<br>3.68  | 0.120<br>3.05  | 0.145<br>3.68  |
| G IN.<br>MM | 0.090<br>2.29  | 0.110<br>2.79  | 0.090<br>2.29  | 0.110<br>2.79  | 0.090<br>2.29  | 0.110<br>2.79  |
| H IN.<br>MM | 0.625<br>15.88 | 0.675<br>17.15 | 0.625<br>15.88 | 0.675<br>17.15 | 0.625<br>15.88 | 0.675<br>17.15 |
| J IN.<br>MM | 0.008<br>0.20  | 0.012<br>0.30  | 0.008<br>0.20  | 0.012<br>0.30  | 0.008<br>0.20  | 0.012<br>0.30  |
| K IN.<br>MM | 0.015<br>0.38  | 0.022<br>0.56  | 0.015<br>0.38  | 0.022<br>0.56  | 0.015<br>0.38  | 0.022<br>0.56  |

8-, 14-, AND 16-PIN SOIC (.150" BODY WIDTH)



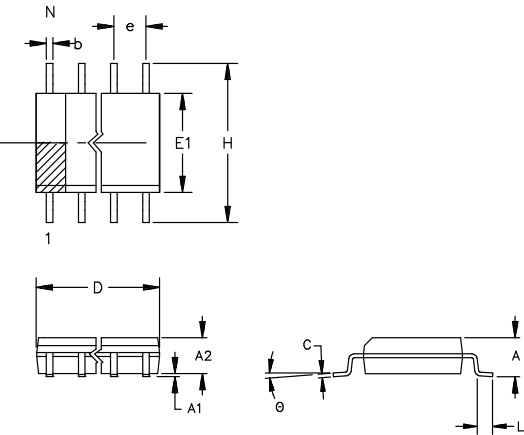
| PKG          | 8-PIN                 |               | 14-PIN                |               | 16-PIN                |               |
|--------------|-----------------------|---------------|-----------------------|---------------|-----------------------|---------------|
| DIM          | MIN                   | MAX           | MIN                   | MAX           | MIN                   | MAX           |
| A IN.<br>MM  | 0.053<br>1.35         | 0.069<br>1.75 | 0.053<br>1.35         | 0.069<br>1.75 | 0.053<br>1.35         | 0.069<br>1.75 |
| A1 IN.<br>MM | 0.004<br>0.10         | 0.010<br>0.25 | 0.004<br>0.10         | 0.010<br>0.25 | 0.004<br>0.10         | 0.010<br>0.25 |
| A2 IN.<br>MM | 0.048<br>1.24         | 0.062<br>1.57 | 0.048<br>1.24         | 0.062<br>1.57 | 0.048<br>1.24         | 0.062<br>1.57 |
| b IN.<br>MM  | 0.012<br>0.30         | 0.020<br>0.50 | 0.012<br>0.30         | 0.020<br>0.50 | 0.012<br>0.30         | 0.020<br>0.50 |
| C IN<br>MM   | 0.007<br>0.17         | 0.011<br>0.28 | 0.007<br>0.17         | 0.011<br>0.28 | 0.007<br>0.17         | 0.011<br>0.28 |
| D IN.<br>MM  | 0.188<br>4.78         | 0.196<br>4.98 | 0.337<br>8.55         | 0.344<br>8.74 | 0.386<br>9.80         | 0.393<br>9.98 |
| e IN.<br>MM  | 0.050 BSC<br>1.27 BSC |               | 0.050 BSC<br>1.27 BSC |               | 0.050 BSC<br>1.27 BSC |               |
| E1 IN.<br>MM | 0.150<br>3.81         | 0.158<br>4.01 | 0.150<br>3.81         | 0.158<br>4.01 | 0.150<br>3.81         | 0.158<br>4.01 |
| H IN.<br>MM  | 0.230<br>5.84         | 0.244<br>6.20 | 0.230<br>5.84         | 0.244<br>6.20 | 0.230<br>5.84         | 0.244<br>6.20 |
| L IN.<br>MM  | 0.016<br>0.40         | 0.050<br>0.89 | 0.016<br>0.40         | 0.050<br>0.89 | 0.016<br>0.40         | 0.050<br>0.89 |
| Θ            | 0°                    | 8°            | 0°                    | 8°            | 0°                    | 8°            |

8-PIN SOIC (208 MIL)



| PKG      | 8-PIN     |       |
|----------|-----------|-------|
|          | DIM       |       |
|          | MIN       | MAX   |
| A IN.    | 0.072     | 0.084 |
| MM       | 1.83      | 2.13  |
| A1 IN.   | 0.004     | 0.010 |
| MM       | 0.102     | 0.25  |
| A2 IN.   | 0.070     | 0.080 |
| MM       | 1.78      | 2.03  |
| b IN.    | 0.013     | 0.020 |
| MM       | 0.33      | 0.51  |
| C IN.    | 0.006     | 0.010 |
| MM       | 0.15      | 0.25  |
| D IN.    | 0.203     | 0.215 |
| MM       | 5.16      | 5.46  |
| e IN     | 0.050 BSC |       |
| MM       | 1.27 BSC  |       |
| E1 IN    | 0.203     | 0.213 |
| MM       | 5.16      | 5.41  |
| H IN.    | 0.302     | 0.318 |
| MM       | 7.67      | 8.07  |
| L IN.    | 0.019     | 0.030 |
| MM       | 0.48      | 0.76  |
| $\theta$ | 0°        | 8°    |

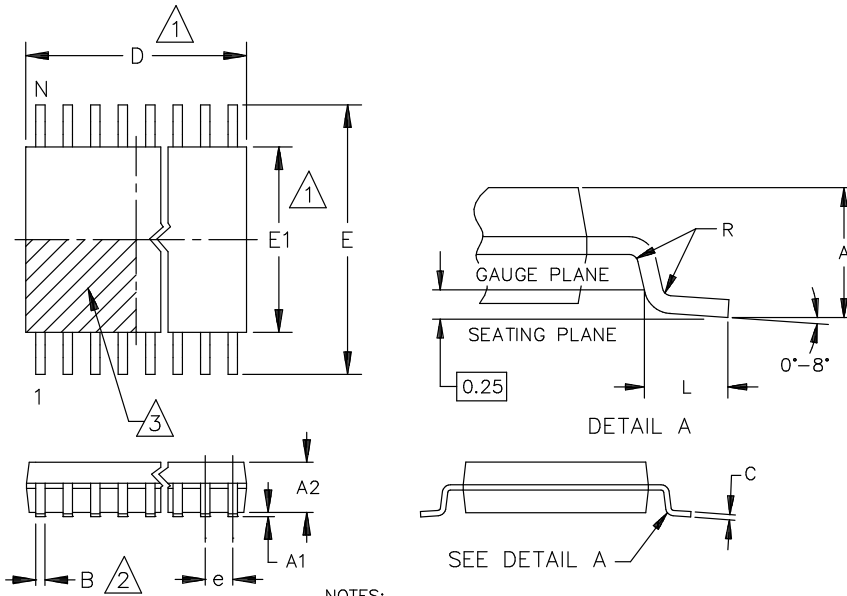
16–, 20–, 24–, 28-PIN SOIC (300 MIL)



The chamfer on the body is optional. If it is not present, a terminal 1 identifier must be positioned so that 1/2 or more of its area is contained in the hatched zone.

| PKG          | 16-PIN                |                | 20-PIN         |                | 24-PIN         |                | 28-PIN                |                |
|--------------|-----------------------|----------------|----------------|----------------|----------------|----------------|-----------------------|----------------|
| DIM          | MIN                   | MAX            | MIN            | MAX            | MIN            | MAX            | MIN                   | MAX            |
| A IN.<br>MM  | 0.094<br>2.38         | 0.105<br>2.68  | 0.094<br>2.38  | 0.105<br>2.68  | 0.094<br>2.38  | 0.105<br>2.68  | 0.094<br>2.39         | 0.105<br>2.67  |
| A1 IN.<br>MM | 0.004<br>0.102        | 0.012<br>0.30  | 0.004<br>0.102 | 0.012<br>0.30  | 0.004<br>0.102 | 0.012<br>0.30  | 0.004<br>0.102        | 0.012<br>0.30  |
| A2 IN.<br>MM | 0.089<br>2.26         | 0.095<br>2.41  | 0.089<br>2.26  | 0.095<br>2.41  | 0.089<br>2.26  | 0.095<br>2.41  | 0.089<br>2.26         | 0.095<br>2.41  |
| b IN.<br>MM  | 0.013<br>0.33         | 0.020<br>0.51  | 0.013<br>0.33  | 0.020<br>0.51  | 0.013<br>0.33  | 0.020<br>0.51  | 0.013<br>0.33         | 0.020<br>0.51  |
| C IN<br>MM   | 0.009<br>0.229        | 0.013<br>0.33  | 0.009<br>0.229 | 0.013<br>0.33  | 0.009<br>0.229 | 0.013<br>0.33  | 0.009<br>0.229        | 0.013<br>0.33  |
| D IN.<br>MM  | 0.398<br>10.11        | 0.412<br>10.46 | 0.498<br>12.65 | 0.511<br>12.99 | 0.598<br>15.19 | 0.612<br>15.54 | 0.698<br>17.73        | 0.712<br>18.08 |
| e IN.<br>MM  | 0.050 BSC<br>1.27 BSC |                |                |                |                |                | 0.050 BSC<br>1.27 BSC |                |
| E1 IN.<br>MM | 0.290<br>7.37         | 0.300<br>7.62  | 0.290<br>7.37  | 0.300<br>7.62  | 0.290<br>7.37  | 0.300<br>7.62  | 0.290<br>7.37         | 0.300<br>7.62  |
| H IN<br>MM   | 0.398<br>10.11        | 0.416<br>10.57 | 0.398<br>10.11 | 0.416<br>10.57 | 0.398<br>10.11 | 0.416<br>10.57 | 0.398<br>10.11        | 0.416<br>10.57 |
| L IN<br>MM   | 0.016<br>0.40         | 0.040<br>1.02  | 0.016<br>0.406 | 0.040<br>1.20  | 0.016<br>0.40  | 0.040<br>1.02  | 0.016<br>0.40         | 0.040<br>1.02  |
| Θ            | 0°                    | 8°             | 0°             | 8°             | 0°             | 8°             | 0°                    | 8°             |

## SSOP PACKAGE

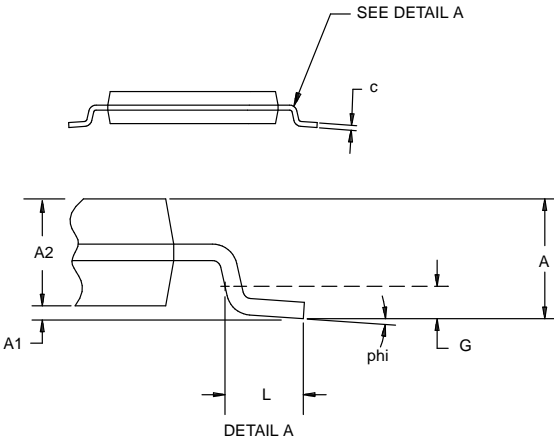
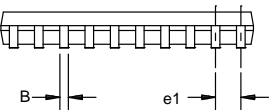
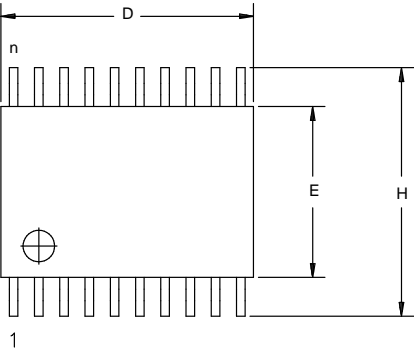


NOTES:

1. DIMENSIONS D & E1 DO NOT INCLUDE MOLD FLASH OR PROTRUSIONS, BUT DO INCLUDE MOLD MISMATCH AND ARE MEASURED AT THE PARTING LINE; MOLD FLASH OR PROTRUSION SHALL NOT EXCEED 0.20 MM PER SIDE.
2. DIMENSION B DOES NOT INCLUDE DAMBAR PROTRUSIONS. DAMBAR PROTRUSION TO BE 0.13 MM TOTAL IN EXCESS OF B AT MAXIMUM MATERIAL CONDITION.
3. VISUAL INDEX FEATURE WITHIN CROSSHATCHED AREA.

| PKG | 14/16-PIN |      | 20-PIN   |      | 24-PIN   |      | 28-PIN   |       |
|-----|-----------|------|----------|------|----------|------|----------|-------|
| DIM | MIN       | MAX  | MIN      | MAX  | MIN      | MAX  | MIN      | MAX   |
| A   | —         | 2.00 | —        | 2.00 | —        | 2.00 | —        | 2.00  |
| A1  | 0.05      | 0.25 | 0.05     | 0.25 | 0.05     | 0.25 | 0.05     | 0.25  |
| A2  | 1.65      | 1.85 | 1.65     | 1.85 | 1.65     | 1.85 | 1.65     | 1.85  |
| B   | 0.22      | 0.38 | 0.22     | 0.38 | 0.22     | 0.38 | 0.22     | 0.38  |
| C   | 0.09      | 0.21 | 0.09     | 0.21 | 0.09     | 0.21 | 0.09     | 0.21  |
| D   | 5.90      | 6.50 | 6.90     | 7.50 | 7.90     | 8.50 | 9.90     | 10.50 |
| E   | 7.40      | 8.20 | 7.40     | 8.20 | 7.40     | 8.20 | 7.40     | 8.20  |
| E1  | 5.00      | 5.60 | 5.00     | 5.60 | 5.00     | 5.60 | 5.00     | 5.60  |
| e   | 0.65 BSC  |      | 0.65 BSC |      | 0.65 BSC |      | 0.65 BSC |       |
| L   | 0.55      | 0.95 | 0.55     | 0.95 | 0.55     | 0.95 | 0.55     | 0.95  |
| R   | 0.09      | —    | 0.09     | —    | 0.09     | —    | 0.09     | —     |

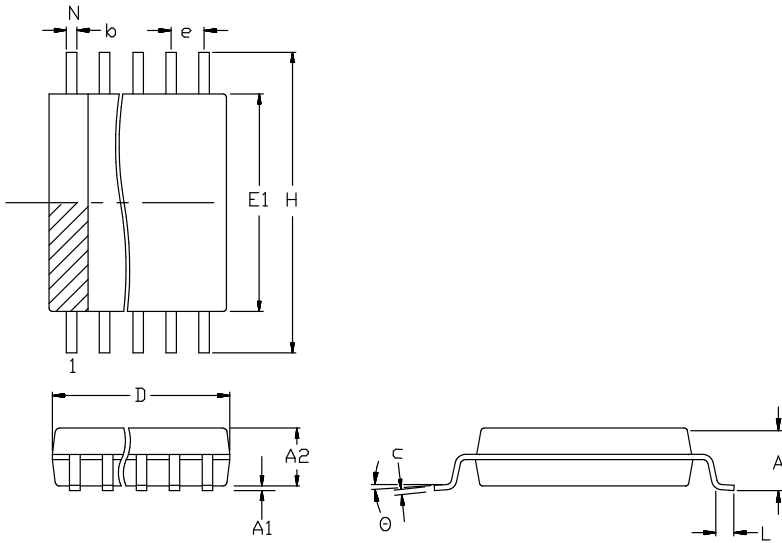
-14, -20-PIN TSSOP



| DIM   | 14-PIN   |      | 20-PIN   |      |
|-------|----------|------|----------|------|
|       | MIN      | MAX  | MIN      | MAX  |
| A MM  | —        | 1.10 | —        | 1.10 |
| A1 MM | 0.05     | —    | 0.05     | —    |
| A2 MM | 0.75     | 1.05 | 0.75     | 1.05 |
| C MM  | 0.09     | 0.18 | 0.09     | 0.18 |
| L MM  | 0.50     | 0.70 | 0.50     | 0.70 |
| e1 MM | 0.65 BSC |      | 0.65 BSC |      |
| B MM  | 0.18     | 0.30 | 0.18     | 0.30 |
| D MM  | 4.90     | 5.10 | 6.40     | 6.90 |
| E MM  | 4.40 NOM |      | 4.40 NOM |      |
| G MM  | 0.25 REF |      | 0.25 REF |      |
| H MM  | 6.25     | 6.55 | 6.25     | 6.55 |
| phi   | 0°       | 8°   | 0°       | 8°   |
| n     | 14       |      | 20       |      |



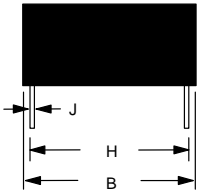
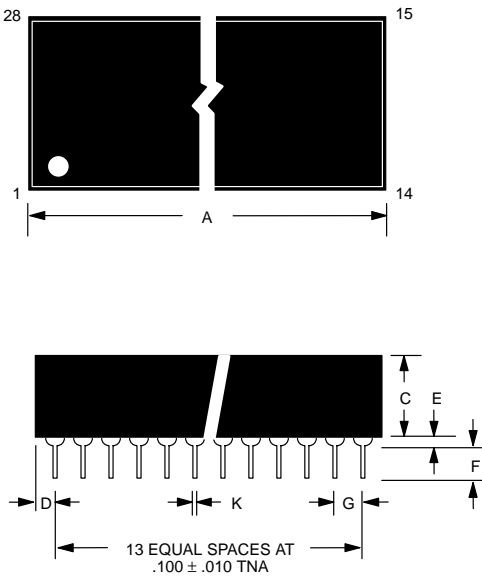
24- AND 28-PIN 330 MIL SOIC



The chamfer on the body is optional. If it is not present, a terminal 1 identifier must be positioned so that 1/2 or more of its area is contained in the hatched zone.

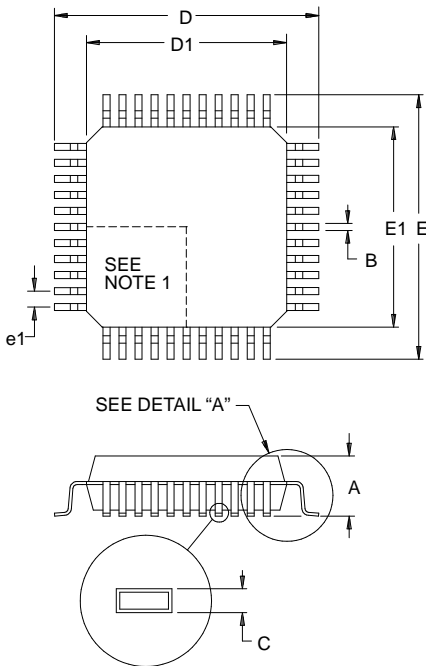
| PKG          | 330 MIL BODY      |               |                  |               | 350 MIL BODY      |                |
|--------------|-------------------|---------------|------------------|---------------|-------------------|----------------|
|              | 24-PIN            |               | 28-PIN           |               | 28-PIN            |                |
| DIM          | MIN               | MAX           | MIN              | MAX           | MIN               | MAX            |
| A IN.<br>MM  | 0.106 TYP<br>2.7  |               |                  |               | 0.090<br>2.29     | 0.124<br>3.15  |
| A1 IN.<br>MM | .007<br>.19       | .008<br>.21   | 0.007<br>0.19    | 0.008<br>0.21 | 0.002<br>0.051    | 0.014<br>0.356 |
| A2 IN.<br>MM | .0925<br>2.35     | .104<br>2.65  | 0.093<br>2.35    | 0.104<br>2.65 | 0.086<br>2.18     | 0.110<br>2.79  |
| b IN.<br>MM  | .012<br>.30       | 0.20<br>0.50  | 0.012<br>0.30    | 0.020<br>0.50 | 0.014<br>0.36     | 0.020<br>0.51  |
| c IN<br>MM   | .004<br>.10       | .008<br>0.20  | 0.004<br>0.10    | 0.008<br>0.20 | 0.006<br>0.152    | 0.013<br>0.32  |
| D IN.<br>MM  | .594<br>15.10     | .602<br>15.30 | 0.697<br>17.7    | 0.705<br>17.9 | 0.706<br>17.93    | 0.728<br>18.49 |
| e IN.<br>MM  | 0.050 BSC<br>1.27 |               |                  |               | 0.050 BSC<br>1.27 |                |
| E1 IN.<br>MM | .327<br>8.30      | .335<br>8.50  | 0.327<br>8.3     | 0.335<br>8.5  | 0.338<br>8.58     | 0.350<br>8.89  |
| H IN<br>MM   | 0.452<br>11.5     | .477<br>12.1  | 0.452<br>11.5    | 0.477<br>12.1 | 0.460<br>11.68    | 0.480<br>12.19 |
| L IN.<br>MM  | 0.039 TYP<br>1.0  |               | 0.039 TYP<br>1.0 |               | 0.020<br>0.51     | 0.050<br>1.27  |
| Θ            | 0°                | 8°            | 0°               | 8°            | 0°                | 8°             |

28-PIN (720 MIL) MODULE



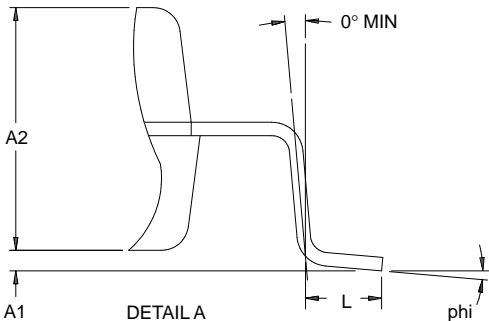
| PKG         | 28-PIN         |                |
|-------------|----------------|----------------|
| DIM         | MIN            | MAX            |
| A IN.<br>MM | 1.520<br>38.61 | 1.540<br>39.12 |
| B IN.<br>MM | 0.695<br>17.65 | 0.720<br>18.29 |
| C IN.<br>MM | 0.350<br>8.89  | 0.375<br>9.52  |
| D IN.<br>MM | 0.100<br>2.54  | 0.130<br>3.30  |
| E IN.<br>MM | 0.015<br>0.38  | 0.030<br>0.76  |
| F IN.<br>MM | 0.110<br>2.79  | 0.140<br>3.56  |
| G IN.<br>MM | 0.090<br>2.29  | 0.110<br>2.79  |
| H IN.<br>MM | 0.590<br>14.99 | 0.630<br>16.00 |
| J IN.<br>MM | 0.008<br>0.20  | 0.012<br>0.30  |
| K IN.<br>MM | 0.015<br>0.38  | 0.021<br>0.53  |

44-PIN METRIC QUAD FLAT PACK (PRELIMINARY)



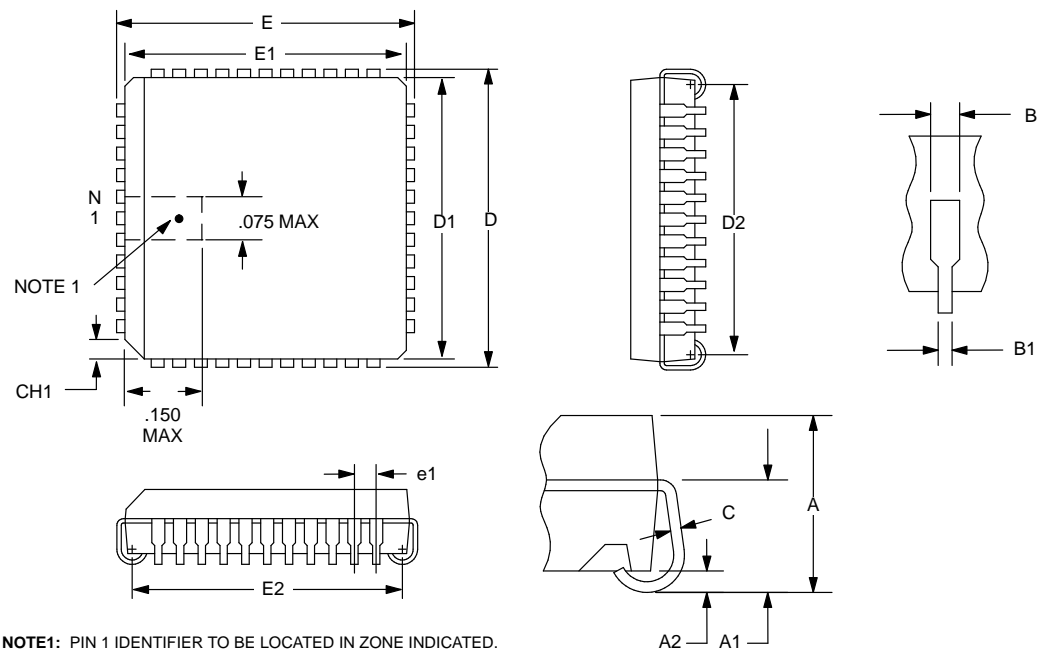
NOTES:

1. DETAILS OF PIN 1 IDENTIFIER ARE OPTIONAL BUT MUST BE LOCATED WITHIN THE ZONE INDICATED.



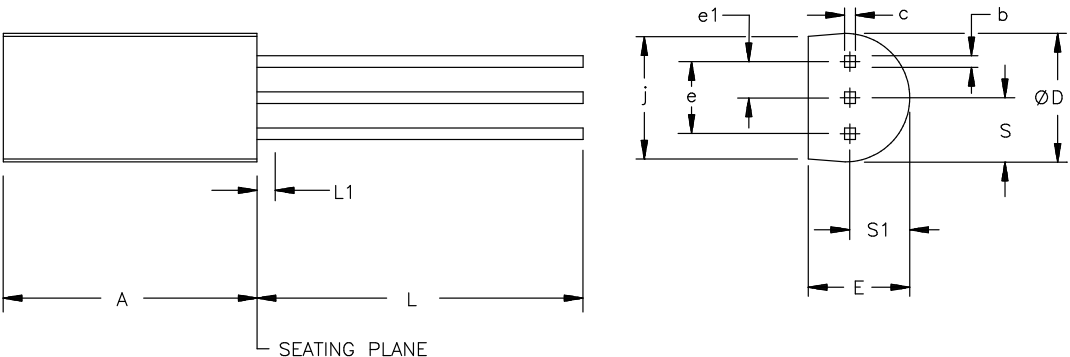
| PKG   | 10 X 10 X 2 BODY |       | 14 X 14 BODY |       |
|-------|------------------|-------|--------------|-------|
| DIM   | MIN              | MAX   | MIN          | MAX   |
| A MM  | —                | 2.45  | 0.50         | 3.10  |
| A1 MM | 0.10             | —     | 0.05         | —     |
| B MM  | 0.30             | 0.45  | 0.20         | 0.50  |
| C MM  | 0.13             | 0.23  | 0.10         | 0.20  |
| D MM  | 13.65            | 14.30 | 17.20        | 18.00 |
| E MM  | 13.65            | 14.30 | 17.20        | 18.00 |
| D1 MM | 9.90             | 10.10 | 13.80        | 14.20 |
| E1 MM | 9.90             | 10.10 | 13.80        | 14.20 |
| L MM  | 0.63             | 1.03  | 0.50         | 1.10  |
| e1 MM | 0.80 BSC         |       | 1.00 BSC     |       |
| phi   | 0°               | 8°    | 0°           | 12°   |

44-PIN PLCC



| DIM | INCHES    |       |
|-----|-----------|-------|
|     | MIN       | MAX   |
| A   | 0.165     | 0.180 |
| A1  | 0.090     | 0.120 |
| A2  | 0.020     | —     |
| B   | 0.026     | 0.033 |
| B1  | 0.013     | 0.021 |
| C   | 0.009     | 0.012 |
| CH1 | 0.042     | 0.048 |
| D   | 0.685     | 0.695 |
| D1  | 0.650     | 0.656 |
| D2  | 0.590     | 0.630 |
| E   | 0.685     | 0.695 |
| E1  | 0.650     | 0.656 |
| E2  | 0.590     | 0.630 |
| e1  | 0.050 BSC |       |

PR35 PACKAGE



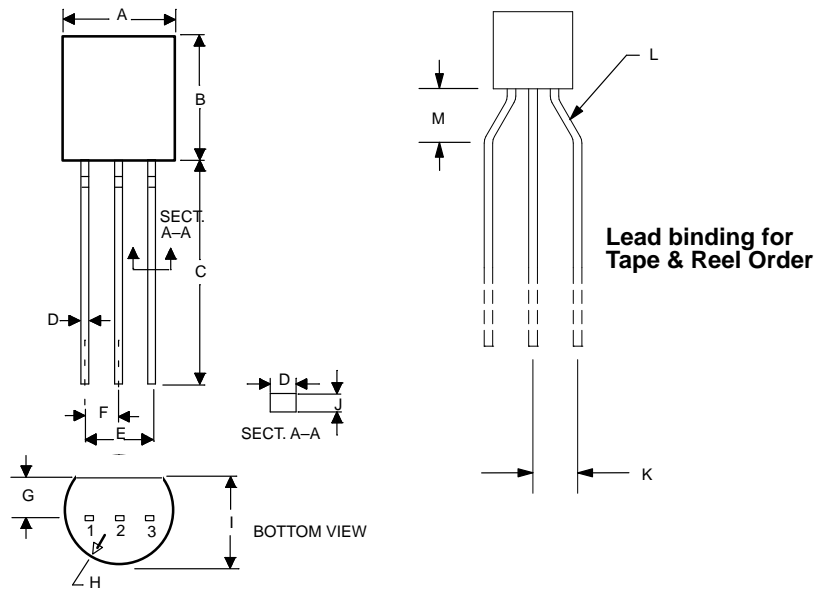
NOTES:

1. TERMINAL DIMENSIONS ARE UNCONTROLLED WITHIN L1.
2. S DIMENSION IS DISTANCE FROM TRUE POSITION CENTER LINE OF THE MIDDLE LEAD POSITION TO THE EXTREMITY OF THE BODY.
3. FLAT INDEX SURFACE FOR MAKING.

| PKG          | PR35           |                |               |      |
|--------------|----------------|----------------|---------------|------|
| DIM          | MIN            | TYP            | MAX           | NOTE |
| A IN.<br>MM  | 0.348<br>8.84  | 0.350<br>8.89  | 0.353<br>8.97 |      |
| b IN.<br>MM  | 0.015<br>0.38  | —              | 0.022<br>0.56 |      |
| c IN.<br>MM  | 0.014<br>0.36  | —              | 0.020<br>0.51 |      |
| D IN.<br>MM  | 0.178<br>4.52  | 0.180<br>4.57  | 0.183<br>4.65 |      |
| E IN.<br>MM  | 0.115<br>2.92  | 0.120<br>3.05  | 0.125<br>3.18 |      |
| e IN.<br>MM  | 0.095<br>2.41  | 0.100<br>2.54  | 0.105<br>2.67 |      |
| e1 IN.<br>MM | 0.045<br>1.14  | 0.050<br>1.27  | 0.055<br>1.40 |      |
| j IN.<br>MM  | 0.160<br>4.06  | —              | —             | 3    |
| L IN.<br>MM  | 0.420<br>10.67 | —              | —             |      |
| L1 IN.<br>MM | —              | —              | 0.050<br>1.27 | 1    |
| S IN.<br>MM  | 0.083<br>2.11  | 0.090<br>2.29  | 0.099<br>2.51 | 2    |
| S1 IN.<br>MM | 0.080<br>2.03  | 0.0825<br>2.10 | 0.090<br>2.29 | 2    |

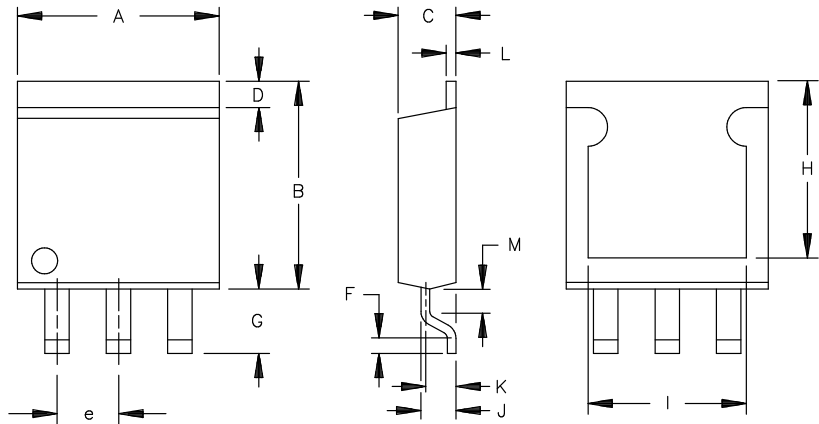
56-G0004-001

TO-92 PACKAGE



| PKG         | TO-92                 |                |
|-------------|-----------------------|----------------|
| DIM         | MIN                   | MAX            |
| A IN.<br>MM | 0.175<br>4.45         | 0.195<br>4.96  |
| B IN.<br>MM | 0.170<br>4.32         | 0.195<br>4.96  |
| C IN.<br>MM | 0.500<br>12.70        | 0.610<br>15.49 |
| D IN.<br>MM | 0.016<br>0.406        | 0.022<br>0.559 |
| E IN.<br>MM | 0.095<br>2.41         | 0.105<br>2.67  |
| F IN.<br>MM | 0.045<br>1.14         | 0.060<br>1.52  |
| G IN.<br>MM | 0.45<br>1.14          | 0.060<br>1.52  |
| H IN<br>MM  | 0.085<br>2.16         | 0.095<br>2.41  |
| I IN<br>MM  | 0.130<br>3.30         | 0.155<br>3.94  |
| J IN<br>MM  | 0.014<br>0.35         | 0.020<br>0.51  |
| K IN<br>MM  | 0.093<br>2.36         | 0.115<br>2.92  |
| L IN<br>MM  | 45°                   | 60°            |
| M IN<br>MM  | 0.118 TYPICAL<br>3.00 |                |

3L D2PAK (TO-220 TABLESS)

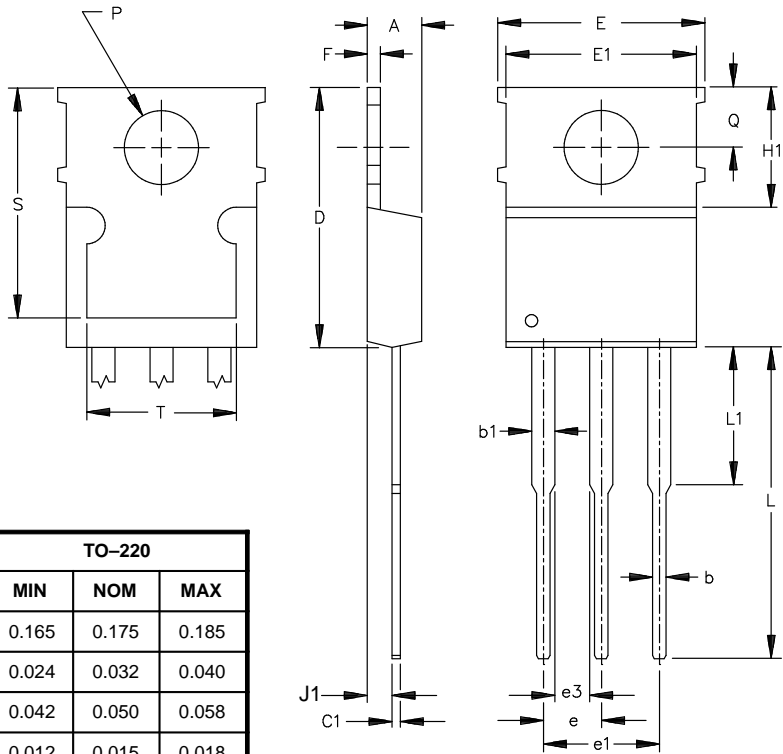


NOTES:

1. Dimensions F and M are measured to the center of radius.
2. All dimensions are shown in inches.

| PKG | TO-220 |       |       |
|-----|--------|-------|-------|
| DIM | MIN    | NOM   | MAX   |
| A   | 0.386  | 0.396 | 0.406 |
| B   | 0.410  | 0.420 | 0.430 |
| C   | 0.160  | 0.170 | 0.180 |
| D   | 0.035  | 0.045 | 0.055 |
| e   | 0.095  | 0.105 | 0.115 |
| F   | 0.025  | 0.035 | 0.045 |
| G   | 0.125  | 0.135 | 0.145 |
| H   | 0.265  | 0.275 | 0.285 |
| I   | 0.195  | 0.205 | 0.215 |
| J   | 0.088  | 0.098 | 0.108 |
| K   | 0.080  | 0.090 | 0.100 |
| L   | 0.040  | 0.050 | 0.060 |
| M   | 0.070  | 0.080 | 0.090 |

3L TO-220

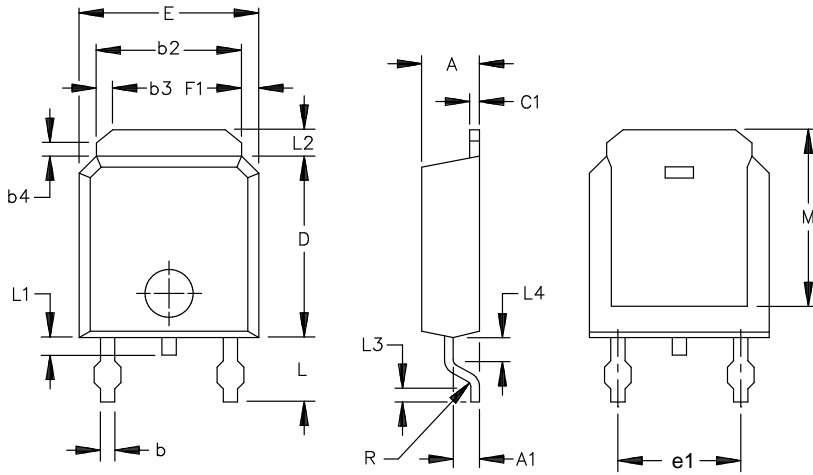


| PKG | TO-220 |       |       |
|-----|--------|-------|-------|
| DIM | MIN    | NOM   | MAX   |
| A   | 0.165  | 0.175 | 0.185 |
| b   | 0.024  | 0.032 | 0.040 |
| b1  | 0.042  | 0.050 | 0.058 |
| C1  | 0.012  | 0.015 | 0.018 |
| D   | 0.573  | 0.588 | 0.603 |
| E   | 0.394  | 0.404 | 0.414 |
| E1  | 0.390  | 0.400 | 0.410 |
| e   | 0.090  | 0.100 | 0.110 |
| e1  | 0.190  | 0.200 | 0.210 |
| e3  | 0.045  | 0.050 | 0.055 |
| F   | 0.045  | 0.050 | 0.055 |
| H1  | 0.236  | 0.248 | 0.260 |
| J1  | 0.095  | 0.105 | 0.115 |
| L   | 0.535  | 0.545 | 0.555 |
| L1  | 0.220  | 0.230 | 0.240 |
| P   | 0.146  | 0.151 | 0.156 |
| Q   | 0.100  | 0.108 | 0.116 |
| S   | 0.465  | 0.475 | 0.485 |
| T   | 0.195  | 0.205 | 0.215 |

All dimensions are shown in inches.



## 3L DPAK (TO-252)

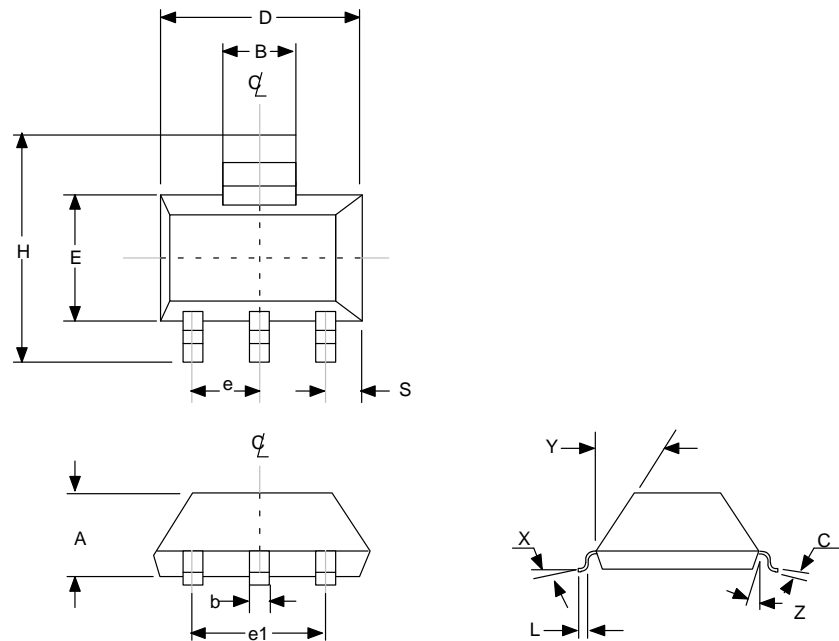


| PKG | TO-252 |       |       |
|-----|--------|-------|-------|
| DIM | MIN    | NOM   | MAX   |
| A   | 0.080  | 0.090 | 0.100 |
| A1  | 0.035  | 0.040 | 0.045 |
| b   | 0.025  | 0.030 | 0.035 |
| b2  | 0.205  | 0.210 | 0.215 |
| b3  | 0.030  | 0.035 | 0.040 |
| b4  | 0.020  | 0.025 | 0.030 |
| C1  | 0.018  | 0.020 | 0.023 |
| D   | 0.230  | 0.240 | 0.250 |
| E   | 0.250  | 0.260 | 0.270 |
| F1  | 0.020  | 0.025 | 0.030 |
| L   | 0.090  | 0.100 | 0.110 |
| L1  | 0.010  | 0.025 | 0.040 |
| L2  | 0.030  | 0.040 | 0.050 |
| L3  | 0.021  | 0.024 | 0.028 |
| L4  | 0.033  | 0.038 | 0.043 |
| M   | 0.165  | 0.175 | 0.185 |
| e1  | 0.170  | 0.180 | 0.190 |
| R   | 0.008  | 0.010 | 0.012 |

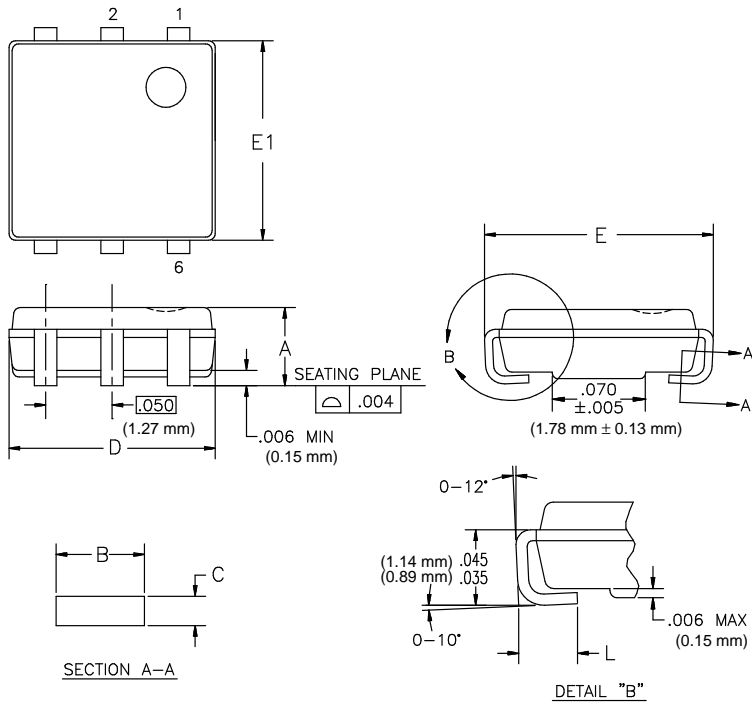
## NOTE:

1. Dimensions L3 and L4 are measured to the center of radius.
2. All dimensions are shown in inches.

SOT-223 PACKAGE



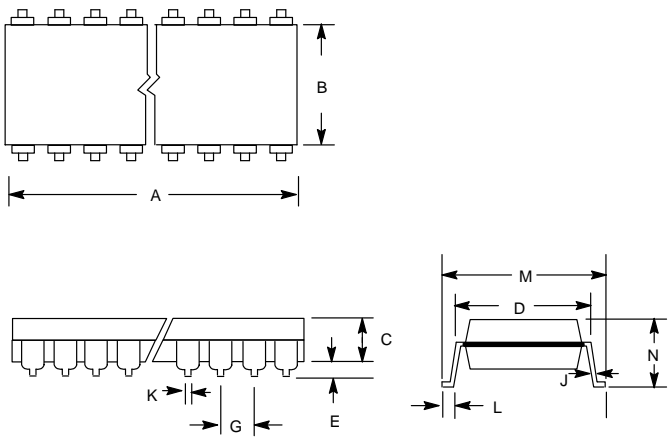
| PKG          | SOT-223                |               |
|--------------|------------------------|---------------|
| DIM          | MIN                    | MAX           |
| A IN.<br>MM  | —                      | 0.067<br>1.70 |
| b IN.<br>MM  | 0.025<br>0.64          | 0.033<br>0.84 |
| B IN.<br>MM  | 0.116<br>2.95          | 0.124<br>3.15 |
| C IN.<br>MM  | 0.009<br>0.23          | 0.013<br>0.33 |
| D IN.<br>MM  | 0.248<br>6.30          | 0.263<br>6.68 |
| e IN.<br>MM  | 0.0905 TYP<br>2.30 TYP |               |
| e1 IN.<br>MM | 0.181 TYP<br>4.60 TYP  |               |
| E IN.<br>MM  | 0.130<br>3.30          | 0.145<br>3.68 |
| H IN.<br>MM  | 0.264<br>6.71          | 0.287<br>7.29 |
| L IN.<br>MM  | 0.016<br>0.41          | 0.036<br>0.91 |
| S IN.<br>MM  | 0.033<br>0.84          | 0.041<br>1.04 |
| X            | 10° MAX                |               |
| Y            | 10°                    | 20°           |
| Z            | 10°                    | 20°           |

**6-PIN TSOC (C-LEAD)****NOTES:**

1. CONTROLLING DIMENSIONS: INCHES.
2. DIMENSIONS D AND E1 ARE MEASURED AT THE PARTING LINE AND DO NOT INCLUDE FLASH AND PROTRUSIONS; FLASH AND PROTRUSIONS NOT TO EXCEED .008 (0.20 mm) PER SIDE ON DIM. D AND .011 (0.28 mm) PER SIDE ON DIM. E1.
3. EXCLUSIVE OF DAMBAR PROTRUSION AND INTRUSION; DAMBAR PROTRUSION AND INTRUSION NOT TO BE POSITIONED ON FOOT OR LOWER RADIUS OF LEAD.

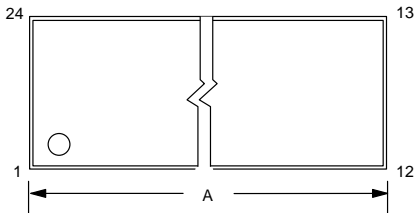
| PKG          | 6-PIN C-LEAD (TSOC) |               |               |      |
|--------------|---------------------|---------------|---------------|------|
| DIM          | MIN                 | NOM           | MAX           | NOTE |
| A IN.<br>MM  | 0.051<br>1.30       | 0.055<br>1.40 | 0.059<br>1.50 |      |
| B IN.<br>MM  | 0.016<br>0.41       | 0.017<br>0.43 | 0.019<br>0.48 | 3    |
| C IN.<br>MM  | 0.005<br>0.13       | 0.006<br>0.15 | 0.008<br>0.20 |      |
| D IN.<br>MM  | 0.153<br>3.89       | 0.155<br>3.94 | 0.157<br>3.99 | 2    |
| E IN.<br>MM  | 0.163<br>4.14       | 0.169<br>4.29 | 0.175<br>4.45 |      |
| E1 IN.<br>MM | 0.144<br>3.66       | 0.150<br>3.81 | 0.152<br>3.86 | 2    |
| L IN.<br>MM  | 0.025<br>0.64       | 0.032<br>0.81 | 0.039<br>0.99 |      |

8- TO 20-PIN GULLWING (300 MIL)

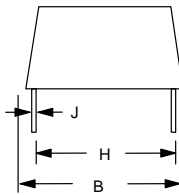
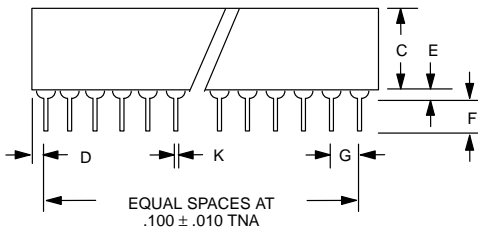


| PKG         | 8-PIN         |                | 14-PIN         |                | 16-PIN         |                | 20-PIN         |                |
|-------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| DIM         | MIN           | MAX            | MIN            | MAX            | MIN            | MAX            | MIN            | MAX            |
| A IN.<br>MM | 0.345<br>8.76 | 0.400<br>10.16 | 0.740<br>12.19 | 0.780<br>13.20 | 0.740<br>18.79 | 0.780<br>9.81  | 0.960<br>24.38 | 1.040<br>26.41 |
| B IN.<br>MM | 0.240<br>6.10 | 0.260<br>6.60  | 0.240<br>6.10  | 0.260<br>6.60  | 0.240<br>6.10  | 0.260<br>6.60  | 0.240<br>6.10  | 0.260<br>6.60  |
| C IN.<br>MM | 0.120<br>3.05 | 0.140<br>3.56  | 0.120<br>3.05  | 0.140<br>3.56  | 0.120<br>3.05  | 0.140<br>3.56  | 0.120<br>3.05  | 0.140<br>3.56  |
| D IN.<br>MM | 0.300<br>7.62 | 0.325<br>8.26  | 0.300<br>7.62  | 0.325<br>8.26  | 0.300<br>7.62  | 0.325<br>8.26  | 0.300<br>7.62  | 0.325<br>8.26  |
| E IN.<br>MM | 0.020<br>0.51 | 0.040<br>1.02  | 0.020<br>0.51  | 0.040<br>1.02  | 0.020<br>0.51  | 0.040<br>1.02  | 0.020<br>0.51  | 0.040<br>1.02  |
| G IN.<br>MM | 0.090<br>2.29 | 0.110<br>2.79  | 0.090<br>2.29  | 0.110<br>2.79  | 0.090<br>2.29  | 0.110<br>2.79  | 0.090<br>2.29  | 0.110<br>2.79  |
| J IN.<br>MM | 0.008<br>0.20 | 0.012<br>0.30  | 0.008<br>0.20  | 0.012<br>0.30  | 0.008<br>0.20  | 0.012<br>0.30  | 0.008<br>0.20  | 0.012<br>0.30  |
| K IN.<br>MM | 0.015<br>0.38 | 0.021<br>0.53  | 0.015<br>0.38  | 0.021<br>0.53  | 0.015<br>0.38  | 0.021<br>0.53  | 0.015<br>0.38  | 0.021<br>0.53  |
| L IN.<br>MM | 0.030<br>0.76 | 0.050<br>1.27  | 0.030<br>0.76  | 0.050<br>1.27  | 0.030<br>0.76  | 0.050<br>1.27  | 0.030<br>0.76  | 0.050<br>1.27  |
| M IN.<br>MM | 0.370<br>9.40 | 0.420<br>10.67 | 0.370<br>9.40  | 0.420<br>10.67 | 0.370<br>9.40  | 0.420<br>10.67 | 0.370<br>9.40  | 0.420<br>10.67 |
| N IN.<br>MM | 0.160<br>4.06 | 0.180<br>4.57  | 0.160<br>4.06  | 0.180<br>4.57  | 0.160<br>4.06  | 0.180<br>4.57  | 0.160<br>4.06  | 0.180<br>4.57  |

**16- AND 24- PIN ENCAPSULATED PACKAGE  
(FLUSH BOTTOM – 450 MIL.)**

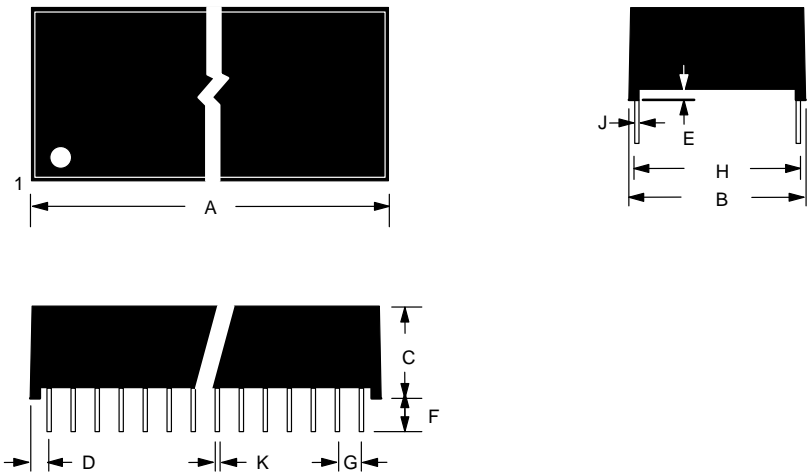


NOTE: On 16-pin package, pins 1 and 16 are missing by design. On 24-pin package, pins 1 and 24 are missing by design.



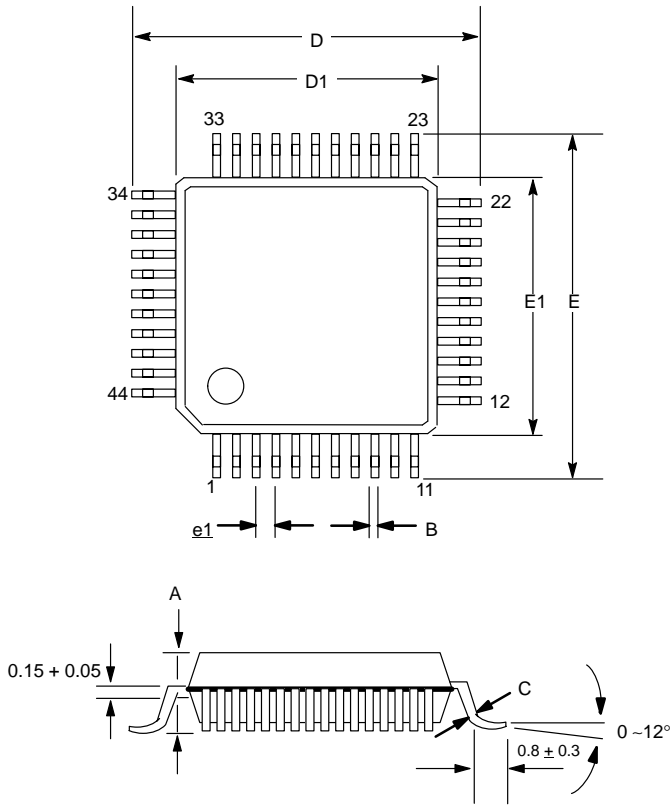
| PKG         | 16-PIN         |                | 24-PIN         |                |
|-------------|----------------|----------------|----------------|----------------|
| DIM         | MIN            | MAX            | MIN            | MAX            |
| A IN.<br>MM | 0.820<br>20.83 | 0.840<br>21.34 | 1.310<br>33.27 | 1.330<br>33.78 |
| B IN.<br>MM | 0.440<br>11.18 | 0.460<br>11.68 | 0.440<br>11.18 | 0.460<br>11.68 |
| C IN.<br>MM | 0.330<br>8.38  | 0.370<br>9.40  | 0.330<br>8.38  | 0.370<br>9.40  |
| D IN.<br>MM | 0.180<br>4.57  | 0.210<br>5.33  | 0.215<br>5.46  | 0.245<br>6.22  |
| E IN.<br>MM | 0.020<br>0.51  | 0.040<br>1.02  | 0.020<br>0.51  | 0.040<br>1.02  |
| F IN.<br>MM | 0.110<br>2.79  | 0.140<br>3.56  | 0.110<br>2.79  | 0.140<br>3.56  |
| G IN.<br>MM | 0.090<br>2.29  | 0.110<br>2.79  | 0.090<br>2.29  | 0.110<br>2.79  |
| H IN.<br>MM | 0.330<br>8.38  | 0.380<br>9.65  | 0.330<br>8.38  | 0.380<br>9.65  |
| J IN.<br>MM | 0.008<br>0.20  | 0.012<br>0.31  | 0.008<br>0.20  | 0.012<br>0.31  |
| K IN.<br>MM | 0.015<br>0.38  | 0.021<br>0.53  | 0.015<br>0.38  | 0.021<br>0.53  |

32-PIN NONVOLATILE SRAM (740 MIL)



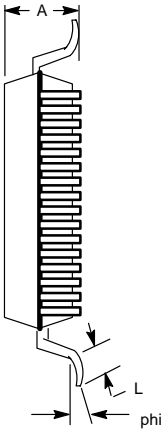
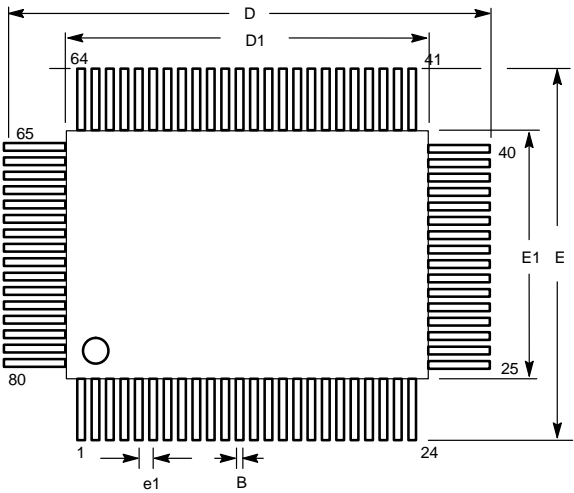
| PKG         | 32-PIN         |                |
|-------------|----------------|----------------|
| DIM         | MIN            | MAX            |
| A IN.<br>MM | 1.720<br>43.69 | 1.740<br>44.20 |
| B IN.<br>MM | 0.720<br>18.29 | 0.740<br>18.80 |
| C IN.<br>MM | 0.395<br>10.03 | 0.415<br>10.54 |
| D IN.<br>MM | 0.090<br>2.29  | 0.120<br>3.05  |
| E IN.<br>MM | 0.017<br>0.43  | 0.030<br>0.76  |
| F IN.<br>MM | 0.120<br>3.05  | 0.160<br>4.06  |
| G IN.<br>MM | 0.090<br>2.29  | 0.110<br>2.79  |
| H IN.<br>MM | 0.590<br>14.99 | 0.630<br>16.00 |
| J IN.<br>MM | 0.008<br>0.20  | 0.012<br>0.30  |
| K IN.<br>MM | 0.015<br>0.38  | 0.021<br>0.53  |

44-PIN QUAD FLAT PACK (PRELIMINARY)



| PKG         | 10 X 10 BODY      |       | 14 X 14 BODY      |       |
|-------------|-------------------|-------|-------------------|-------|
| DIM         | MIN               | MAX   | MIN               | MAX   |
| A MM        | —                 | 2.45  | —                 | 3.4   |
| B MM        | 0.30              | 0.45  | 0.20              | 0.50  |
| C MM        | 0.13              | 0.23  | 0.10              | 0.20  |
| D MM        | 13.65             | 14.35 | 16.95             | 18.00 |
| E MM        | 13.65             | 14.35 | 16.95             | 18.00 |
| D1 MM       | 9.90              | 10.10 | 13.80             | 14.20 |
| E1 MM       | 9.90              | 10.10 | 13.80             | 14.20 |
| L MM        | 0.65              | 0.95  | 0.50              | 1.10  |
| e1 IN<br>MM | 0.315<br>0.80 BSC |       | 0.039<br>1.00 BSC |       |

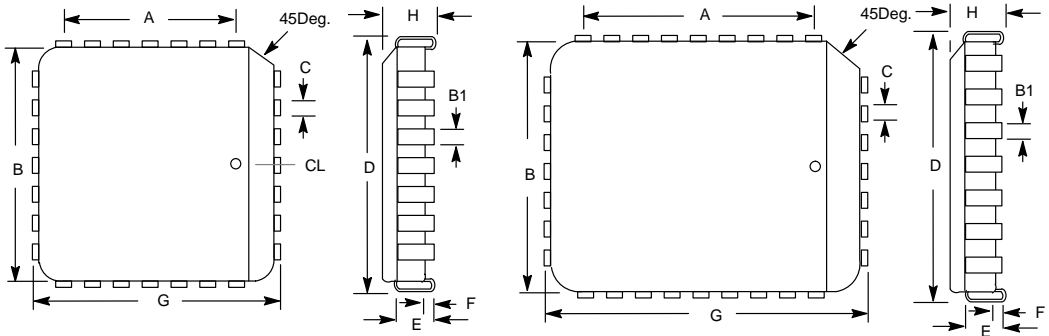
80-PIN QUAD FLAT PACK (14.0 MM X 20.0 MM)



| PKG          | 80-PIN                |                |
|--------------|-----------------------|----------------|
| DIM          | MIN                   | MAX            |
| A IN.<br>MM  | 0.11<br>2.80          | 0.128<br>3.25  |
| B IN.<br>MM  | 0.010<br>0.25         | 0.020<br>0.45  |
| e1 IN.<br>MM | 0.031 BSC<br>0.80 BSC |                |
| D1 IN.<br>MM | 0.781<br>19.85        | 0.793<br>20.15 |
| E1 IN.<br>MM | 0.545<br>13.85        | 0.557<br>14.15 |
| E IN.<br>MM  | 0.688<br>17.50        | 0.720<br>18.30 |
| D IN.<br>MM  | 0.921<br>23.40        | 0.953<br>24.20 |
| L IN<br>MM   | 0.025<br>0.65         | 0.038<br>0.95  |
| phi          | 0°                    | 8°             |

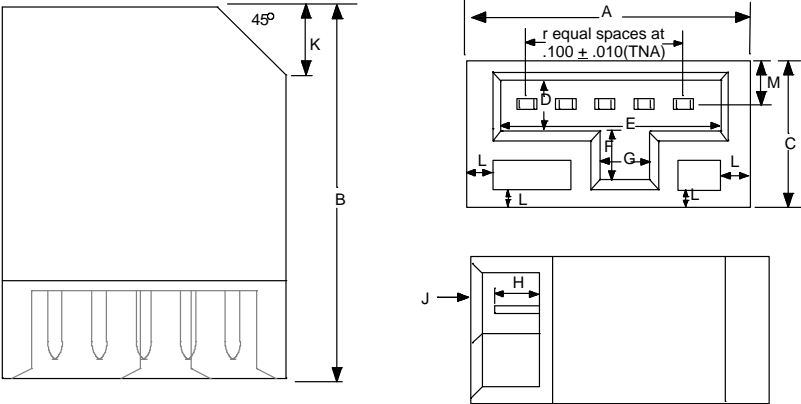


## 28- AND 32- PIN PLASTIC LEADED CHIP CARRIERS (PLCC)

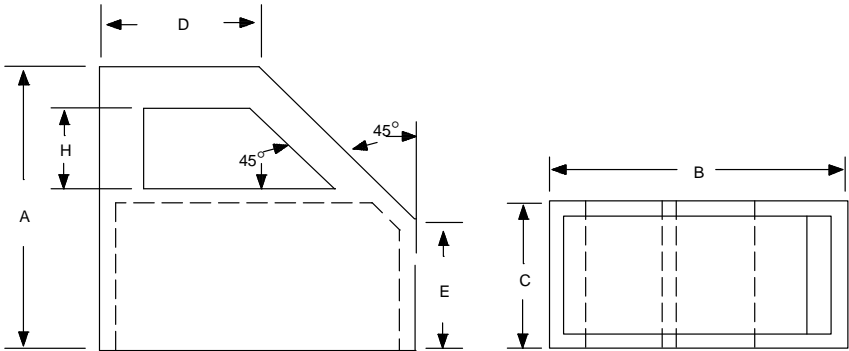


| PKG          | 28-PIN            |                | 32-PIN             |                |
|--------------|-------------------|----------------|--------------------|----------------|
| DIM          | MIN               | MAX            | MIN                | MAX            |
| A IN.<br>MM  | 0.300 BSC<br>7.62 |                | 0.400 BSC<br>10.16 |                |
| B IN.<br>MM  | 0.445<br>11.30    | 0.460<br>11.68 | 0.442<br>11.30     | 0.460<br>11.68 |
| B1 IN.<br>MM | 0.013<br>0.33     | 0.021<br>0.53  | 0.013<br>0.33      | 0.021<br>0.53  |
| C IN.<br>MM  | 0.027<br>0.68     | 0.33<br>8.4    | 0.027<br>0.68      | 0.33<br>8.4    |
| D IN.<br>MM  | 0.480<br>12.19    | 0.500<br>12.70 | 0.480<br>12.19     | 0.500<br>12.70 |
| D2 IN.<br>MM | 0.390<br>9.91     | 0.430<br>10.92 | 0.390<br>9.91      | 0.430<br>10.92 |
| E IN.<br>MM  | 0.090<br>2.29     | 0.120<br>3.05  | 0.060<br>1.52      | 0.095<br>2.41  |
| E2 IN.<br>MM | 0.390<br>9.91     | 0.430<br>10.92 | 0.490<br>12.45     | 0.530<br>13.46 |
| F IN.<br>MM  | 0.020<br>0.51     |                | 0.015<br>0.38      |                |
| G IN.<br>MM  | 0.480<br>12.19    | 0.500<br>12.70 | 0.580<br>14.7      | 0.600<br>15.24 |
| H IN.<br>MM  | 0.165<br>4.19     | 0.180<br>4.57  | 0.100<br>2.54      | 0.140<br>3.56  |

ELECTRONIC KEY/TAG

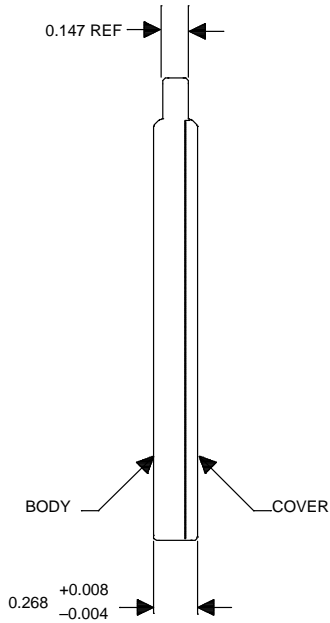
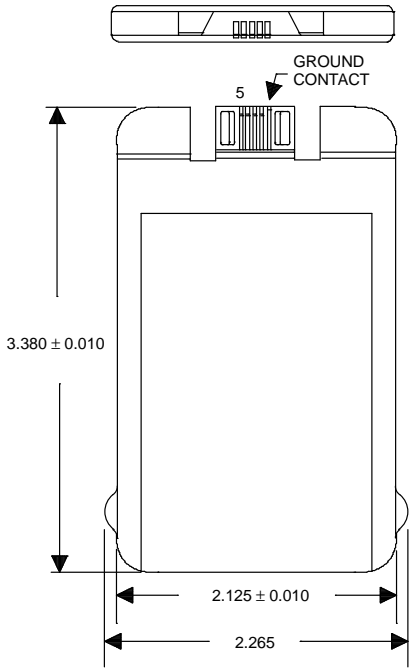


KEY/TAG CAP

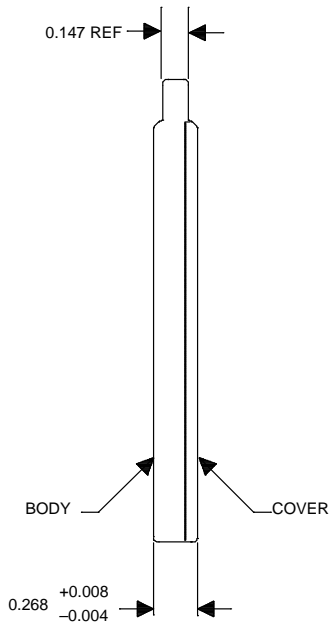
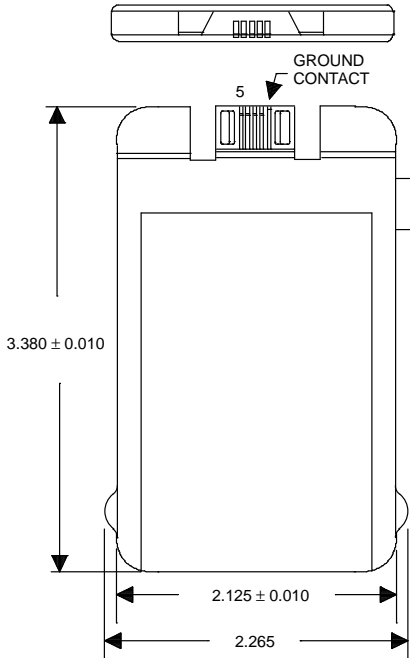


| PKG         | ELECTRONIC<br>KEY/TAG |                | KEY/TAG<br>CAP |                |
|-------------|-----------------------|----------------|----------------|----------------|
| DIM         | MIN                   | MAX            | MIN            | MAX            |
| A IN.<br>MM | 0.610<br>15.50        | 0.650<br>16.51 | 0.790<br>20.07 | 0.810<br>20.57 |
| B IN.<br>MM | 0.740<br>18.80        | 0.760<br>19.30 | 0.680<br>17.27 | 0.700<br>17.78 |
| C IN.<br>MM | 0.310<br>7.87         | 0.355<br>9.02  | 0.405<br>10.29 | 0.425<br>10.80 |
| D IN.<br>MM | 0.100<br>2.54         | 0.110<br>2.79  | 0.290<br>7.37  | 0.310<br>7.87  |
| E IN.<br>MM | 0.505<br>12.83        | 0.515<br>13.08 | 0.410<br>10.41 | 0.430<br>10.92 |
| F IN.<br>MM | 0.100<br>2.54         | 0.110<br>2.79  |                |                |

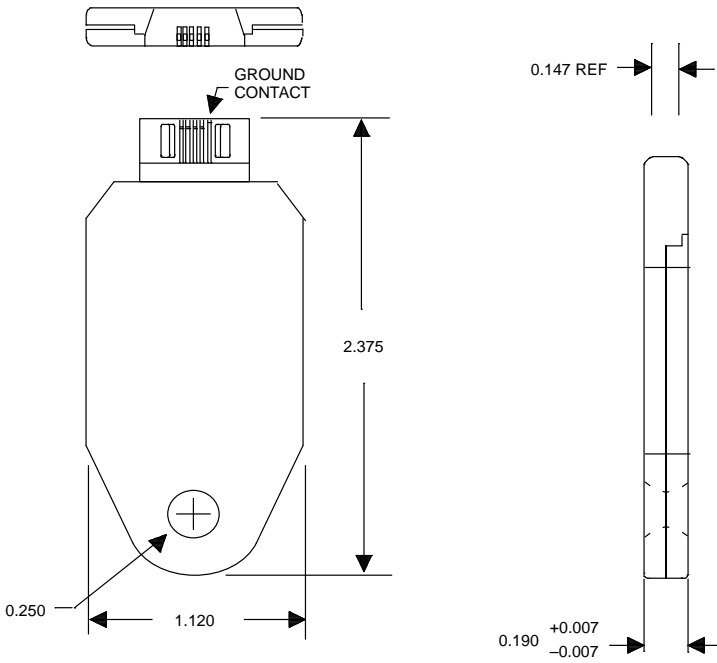
**CYBERCARD PACKAGE, NON-POLARIZED**



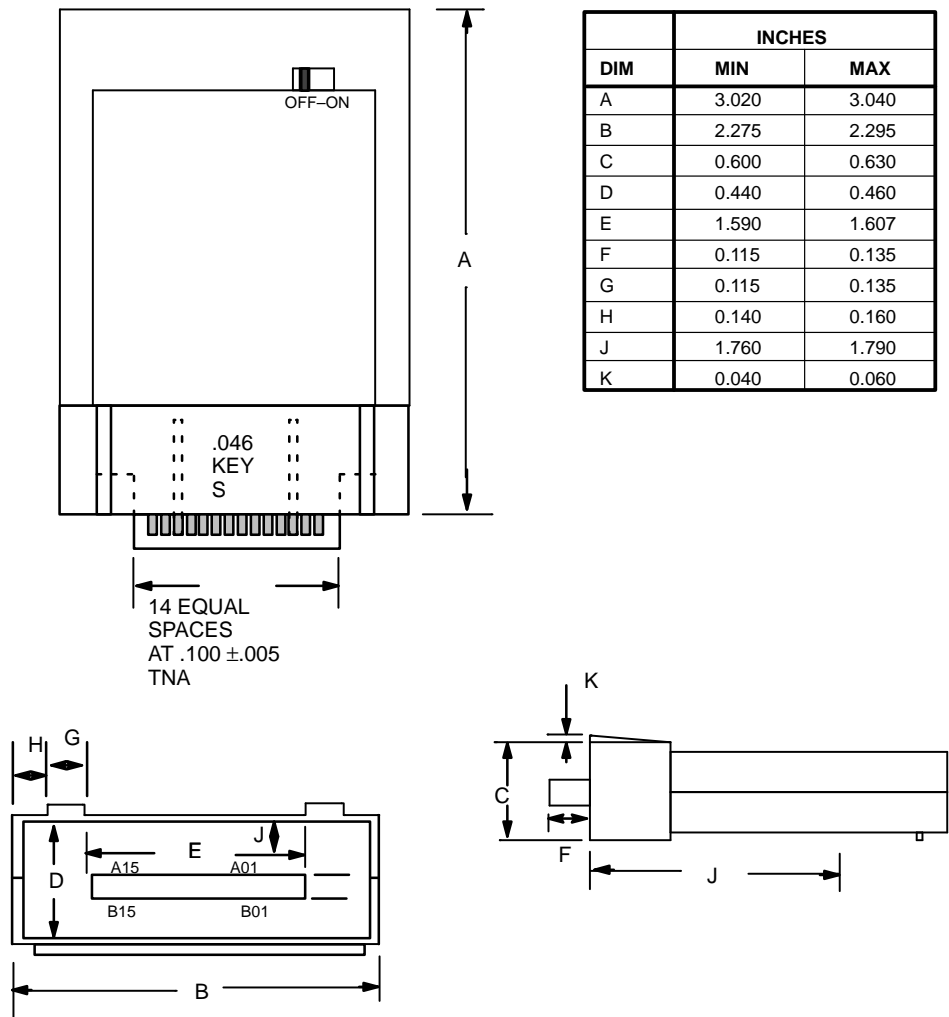
**CYBERCARD PACKAGE, POLARIZED**



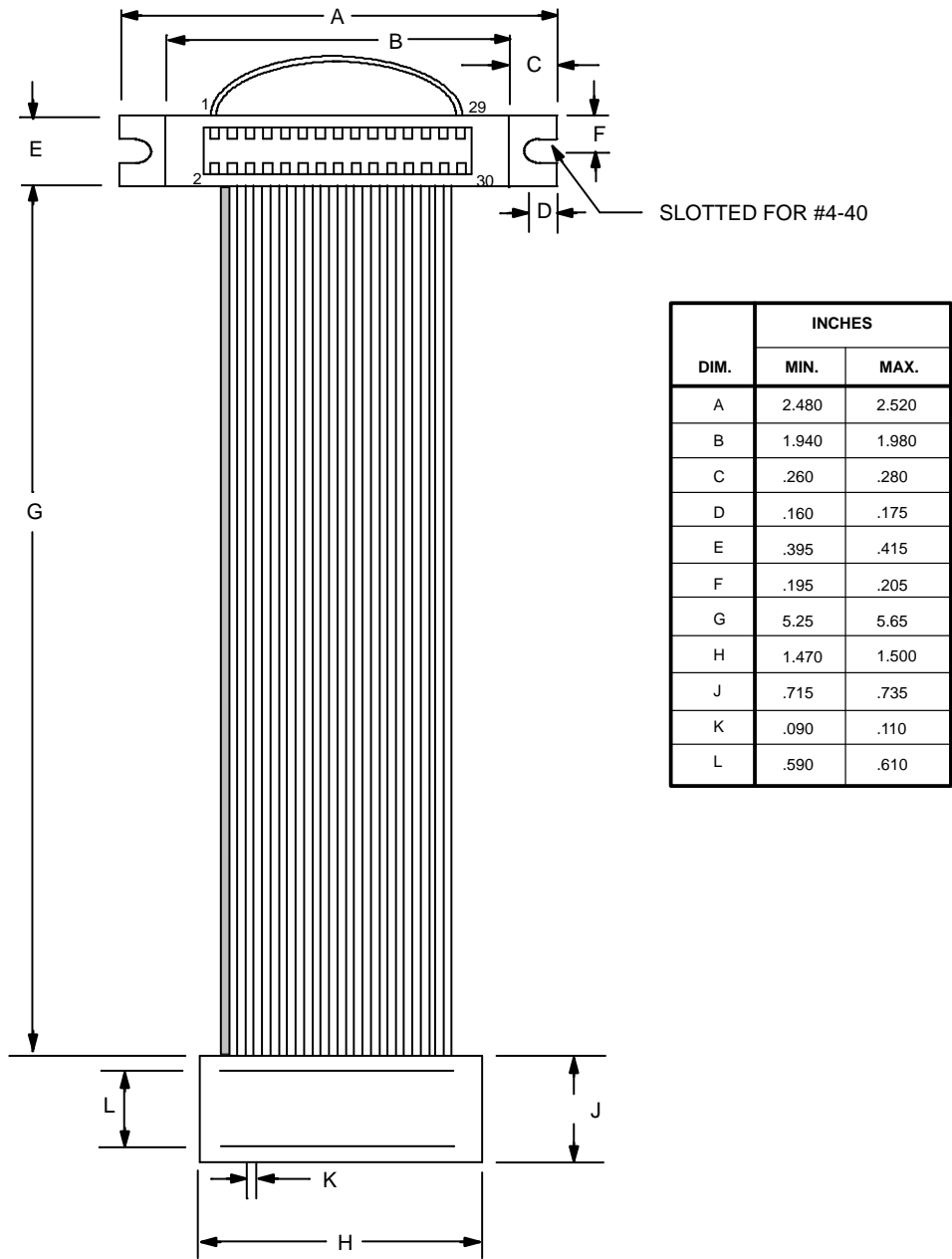
CYBERKEY PACKAGE



NON-VOLATILE READ/WRITE CARTRIDGE

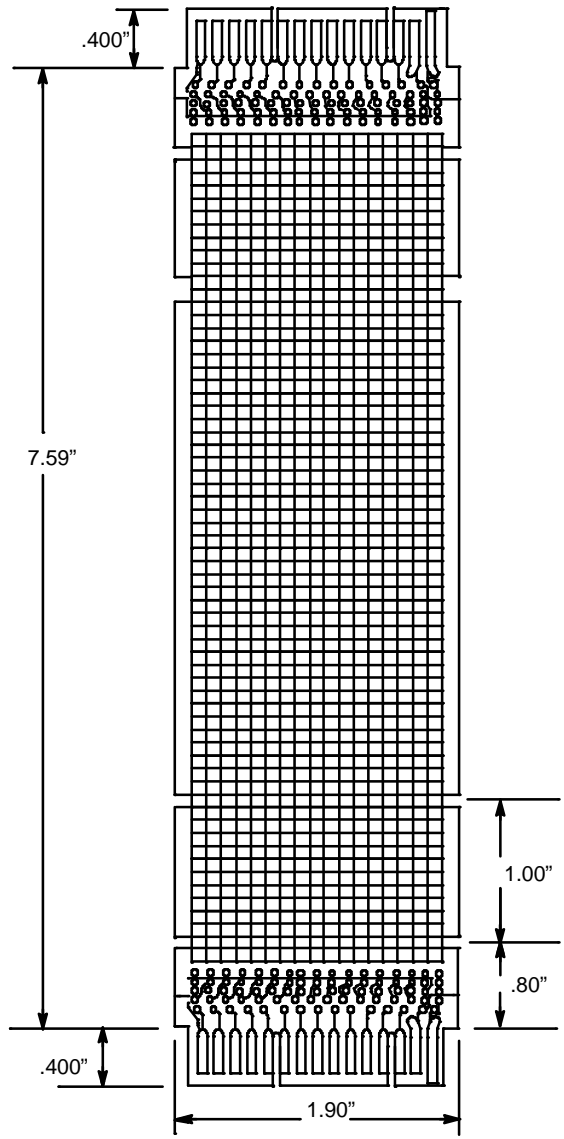


BYTEWIDE CABLE HARNESS

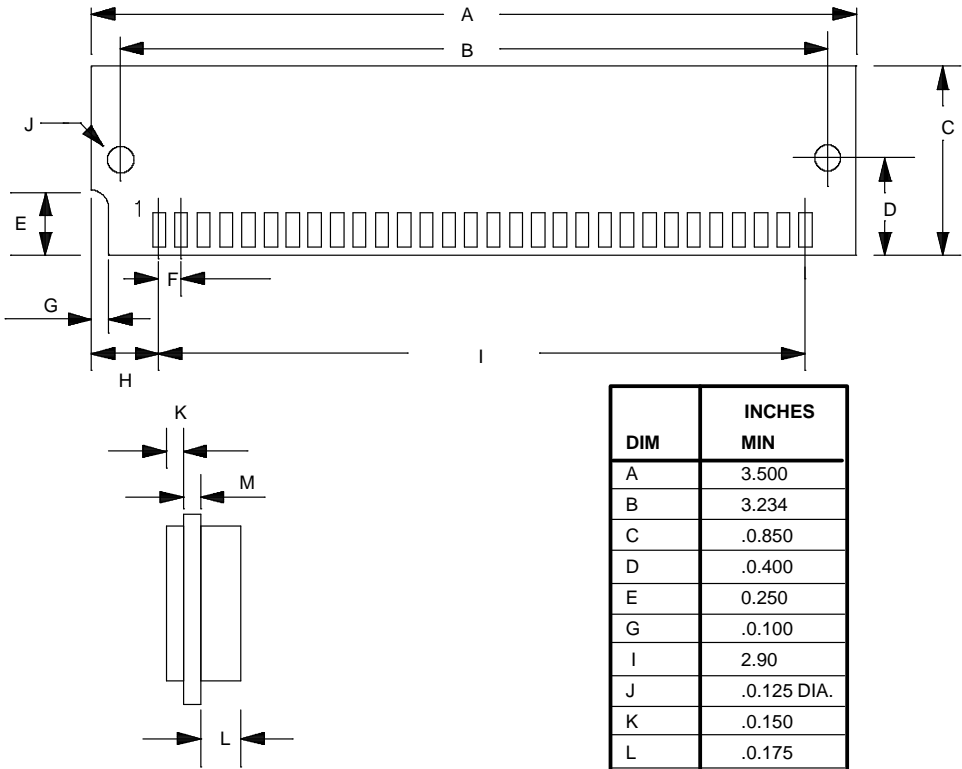


NOTES: COLOR STRIPE INDICATES PIN 1  
END ON 28-PIN PULG.  
DIMENSION L IS CENTER TO CENTER

DS9003  
CARTRIDGE PROTO  
BOARD

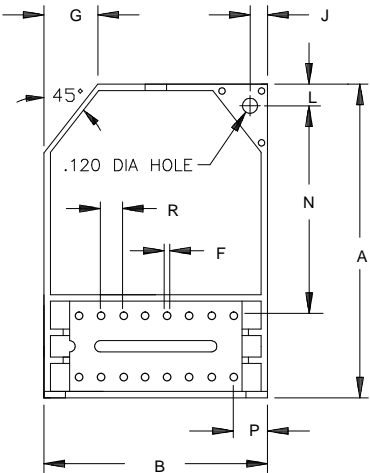


SIPSTIK (30-PIN)



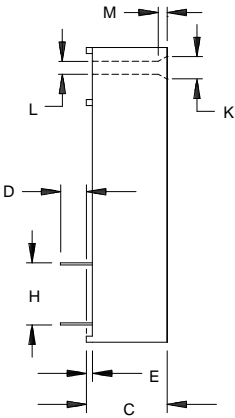


DS1260 SMART BATTERY



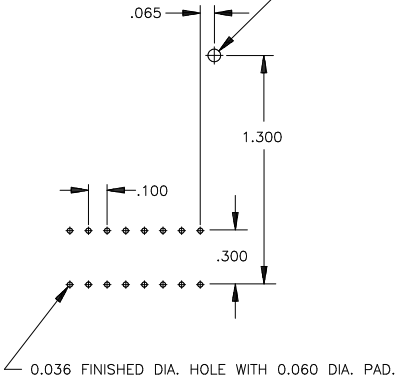
BOTTOM VIEW

| DIM | INCHES |       |
|-----|--------|-------|
|     | MIN    | MAX   |
| A   | 1.480  | 1.500 |
| B   | 1.030  | 1.050 |
| C   | 0.390  | 0.415 |
| D   | 0.125  | 0.145 |
| E   | 0.020  | 0.040 |
| F   | 0.016  | 0.020 |
| G   | 0.240  | 0.260 |
| H   | 0.295  | 0.315 |
| J   | 0.090  | 0.110 |
| K   | 0.160  | 0.180 |
| L   | 0.110  | 0.130 |
| M   | 0.035  | 0.065 |
| N   | 0.985  | 1.010 |
| P   | 0.155  | 0.175 |
| R   | 0.095  | 0.105 |

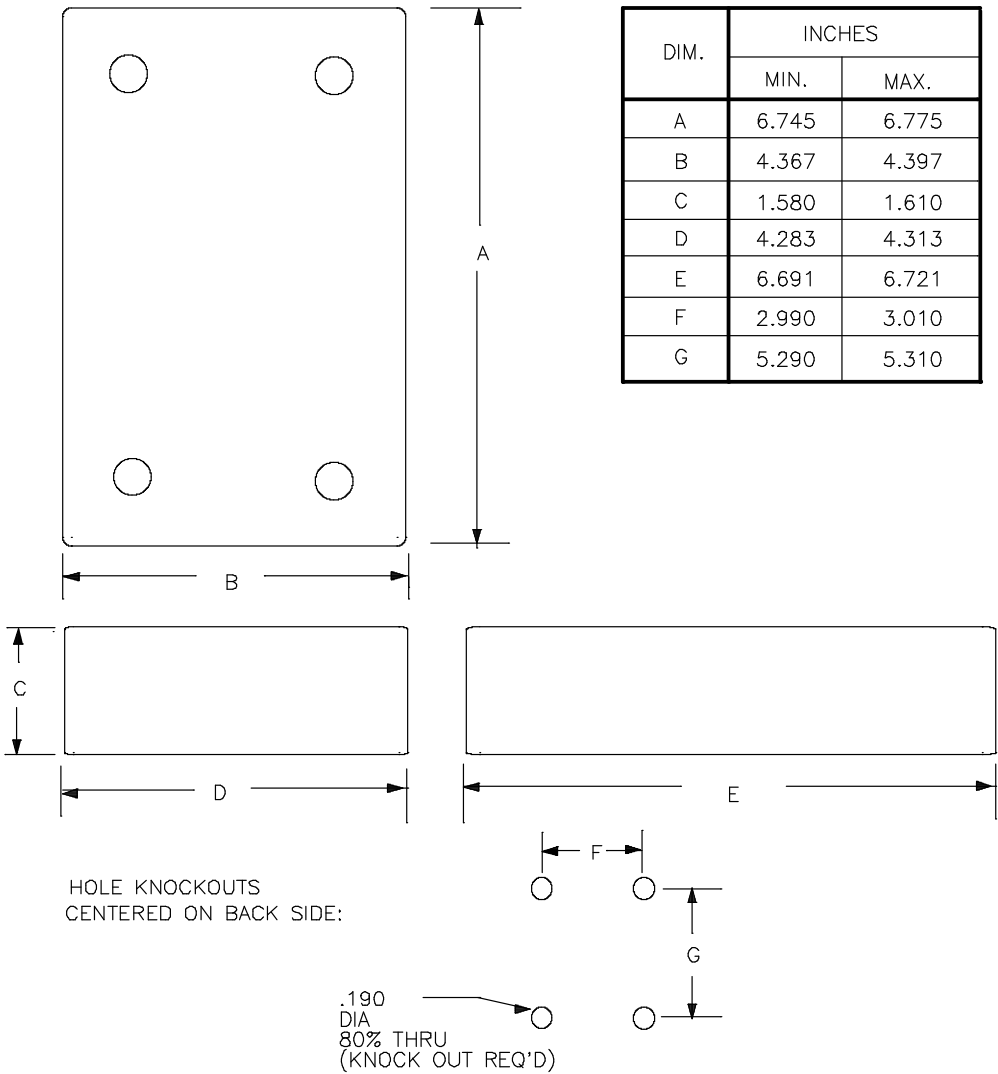


SIDE VIEW

0.150 DIA. HOLE (UNSUPPORTED) (FLAT WASHER SHOULD BE USED ON THE OPPOSITE SIDE OF THE PCB).

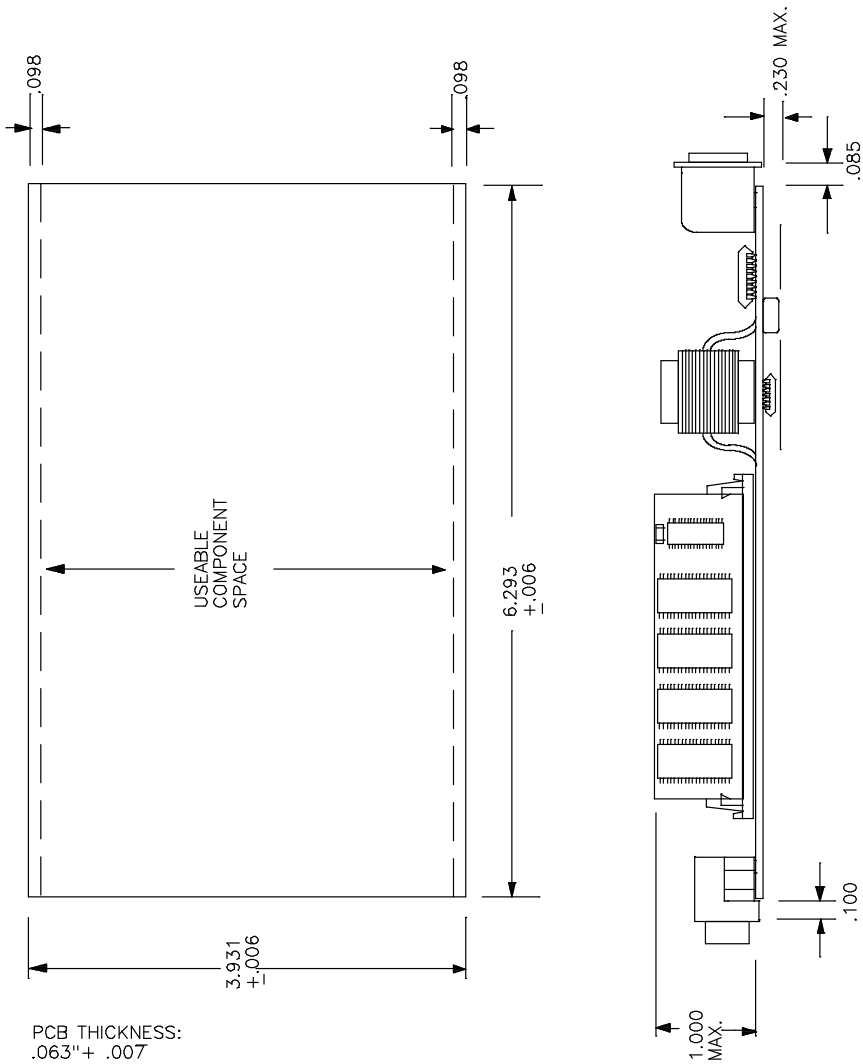


DS9005 EUROCARD ENCLOSURE



**DS9006 SIP STIK™ MOTHERBOARD**

ALL DIMENSIONS IN INCHES

TYPICAL LAYOUT FOR  
DS9005 ENCLOSUREPCB THICKNESS:  
 $.063" \pm .007$ 

SUGGESTED CONNECTOR

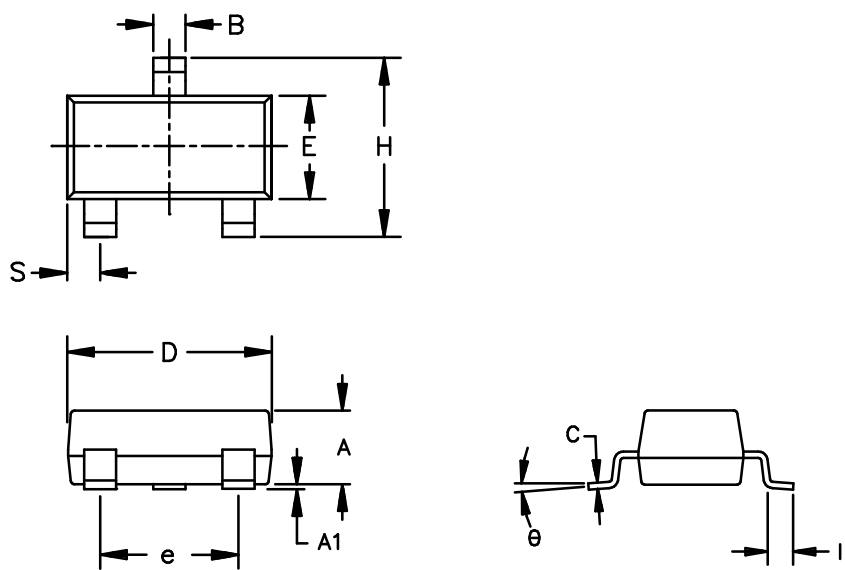
PART NUMBERS:

RJ45- AMP #520252-4

9-PIN D-SUB FEMALE- AMP #745781-1

DIN-64 POS. FEMALE AMP# 531796-2

SOT 23

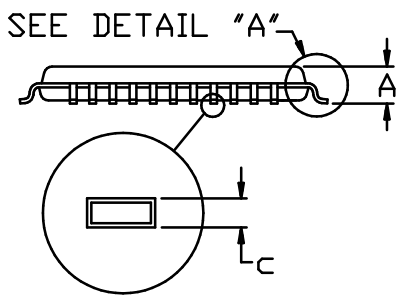
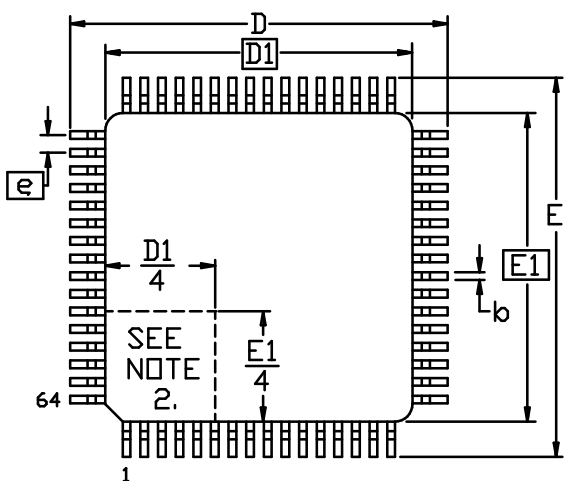


|          | INCHES |       |
|----------|--------|-------|
| LTR      | MIN    | MAX   |
| A        | 0.030  | 0.040 |
| A1       | 0.001  | 0.006 |
| B        | 0.015  | 0.022 |
| C        | 0.003  | 0.008 |
| D        | 0.100  | 0.120 |
| E        | 0.040  | 0.060 |
| e        | 0.070  | 0.085 |
| H        | 0.080  | 0.100 |
| I        | 0.005  | 0.015 |
| S        | 0.015  | 0.025 |
| $\theta$ | 0°     | 8°    |

NOTES:  
1. PACKAGE OUTLINE EXCLUSIVE OF ANY MOLD FLASHES DIMENSION.  
2. PACKAGE OUTLINE EXCLUSIVE OF BURR DIMENSION.

56-G2017-001

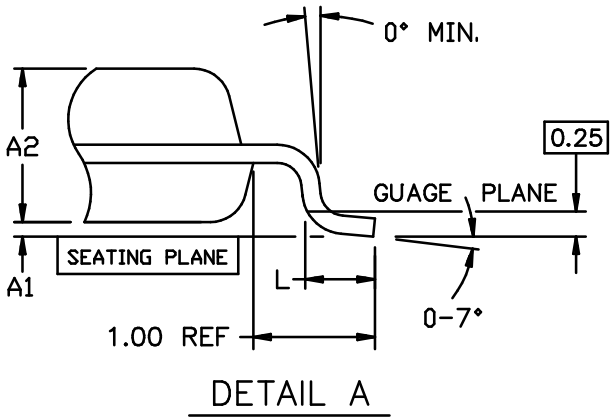
64 TOFP



NOTES:

1. DIMENSIONS D1 AND E1 INCLUDE MOLD MISMATCH, BUT DO NOT INCLUDE MOLD PROTRUSION; ALLOWABLE PROTRUSION IS 0.254 MM ON D1 AND E1.
2. DETAILS OF PIN 1 IDENTIFIER ARE OPTIONAL BUT MUST BE LOCATED WITHIN THE ZONE INDICATED.
3. ALLOWABLE DAMBAR PROTRUSION IS 0.08 MM TOTAL IN EXCESS OF THE B DIMENSION AT MAXIMUM MATERIAL CONDITION. PROTRUSION NOT TO BE LOCATED ON LOWER RADIUS OR FOOT OF LEAD.

| DIM | MIN       | NOM   | MAX   |
|-----|-----------|-------|-------|
| A   | —         | —     | 1.20  |
| A1  | 0.05      | 0.10  | 0.15  |
| A2  | 0.95      | 1.00  | 1.05  |
| b   | 0.17      | 0.22  | 0.27  |
| c   | 0.09      | —     | 0.20  |
| D   | 11.80     | 12.00 | 12.20 |
| D1  | 10.00 BSC |       |       |
| E   | 11.80     | 12.00 | 12.20 |
| E1  | 10.00 BSC |       |       |
| e   | 0.50 BSC  |       |       |
| L   | 0.45      | 0.60  | 0.75  |



DIMENSIONS ARE IN MILLIMETERS

56-G4013-001